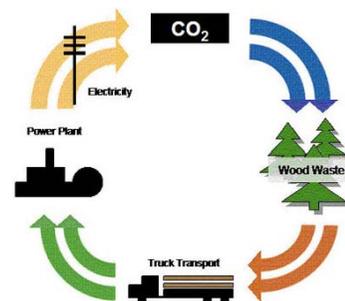




The 2007 Energy Act versus The 2008 Farm Bill



A Comparison of Policy Definitions

The use of forest biomass to create clean and efficient energy has been utilized in small scale for many years, mostly by forest industry facilities. New technology and proposed government policy present incentives to convert forest biomass into fuel and offer the potential to provide a cleaner and independent U.S. fuel source. However, as the Federal government has begun mandating renewable energy production, recent federal legislation has created competing definitions of forest biomass. The Southern Group of State Foresters asked FIA analysts to evaluate the available forest biomass under both the Energy Independence and Security Act of 2007 (EISA) and the 2008 Farm Bill.

The 2007 EISA limits the amount of forest biomass from naturally regenerated forest land, and relies primarily on forest biomass from planted stands to meet the fuel standard and qualify for renewable fuel credits. The source of tree biomass delivered to an energy facility would be tracked by a required chain-of-custody system identifying the type of landowner and verifying trees from plantations or natural stands. In addition, Federal lands are excluded from such opportunities.

The 2008 Farm Bill definition of forest biomass does not restrict natural or plantation forest land leaving the available biomass open to most private forest land.

The following maps and charts provide a comparison of definitions that demonstrate the potential reduction of biomass unconditionally qualifying as “renewable biomass” under the 2007 ESIA versus the more inclusive 2008 Farm Bill definition.

E.g. – For the States and associated Territories identified below, the 2007 Energy Act reduces the qualifying timberland area available by 170.7 million acres or 79 percent compared to the definition in the 2008 Farm Bill.

Alabama
Arkansas
Florida
Georgia
Kentucky
Louisiana

Maryland
Mississippi
Missouri
North Carolina
Oklahoma
Puerto Rico

South Carolina
Tennessee
Texas
U.S. Virgin Islands
Virginia
West Virginia



Forest Inventory and Analysis
In Cooperation with the
State Forestry Agencies

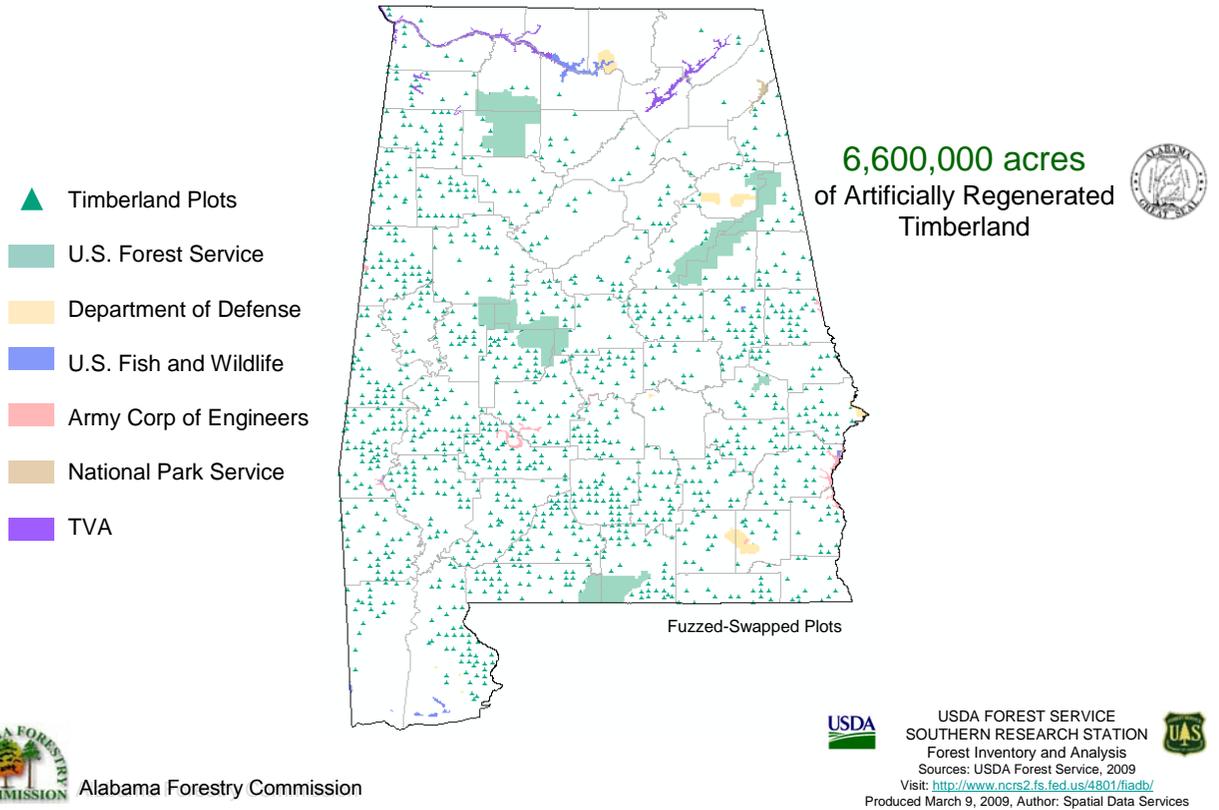


USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis
Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>



Produced March 9, 2009, Author: Spatial Data Services

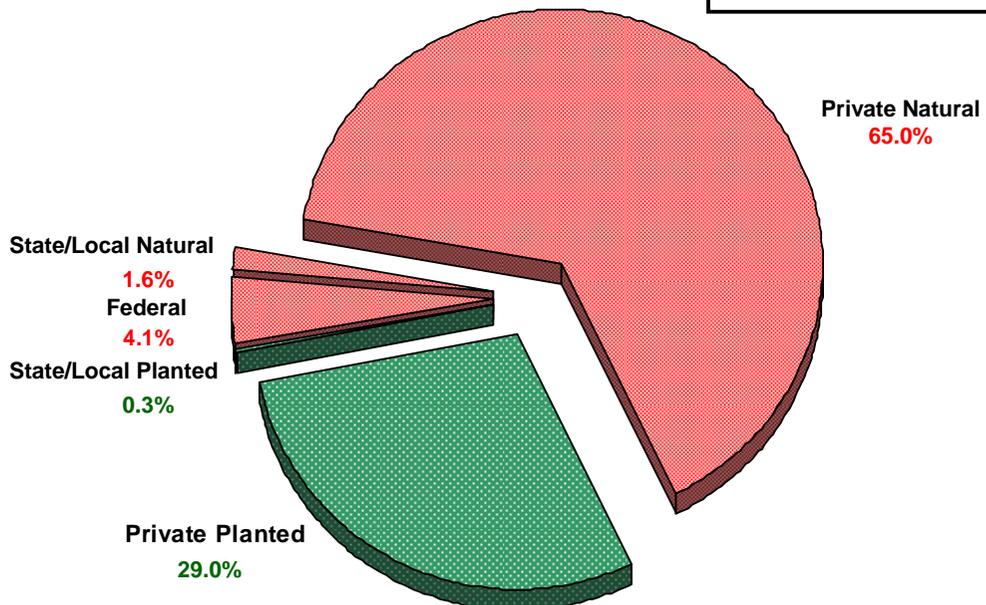
FIA Sample Plots on Alabama Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act



Acres of Timberland in Alabama Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
6.6 million acres

6.6 million ac. (29%) = Qualifying
15.0 million ac. (67%) = Nonqualifying
0.9 million ac. (4%) = Federal Timberland
22.5 million ac. = All Timberland

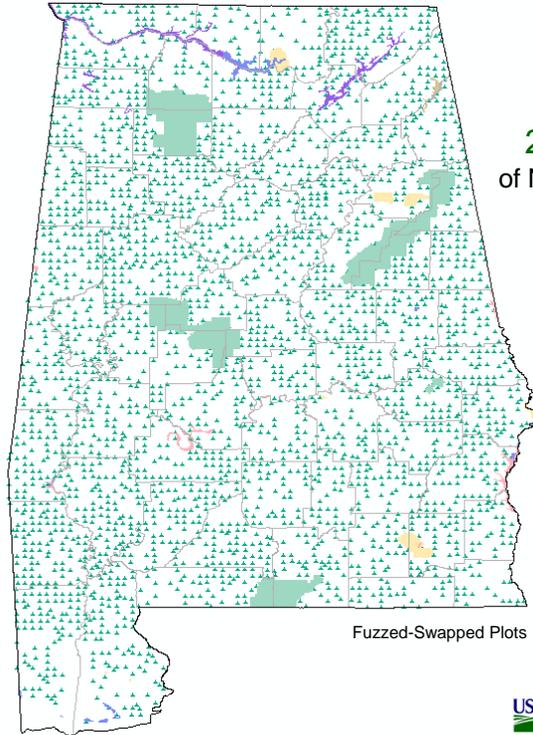


Source: Alabama Forestry Commission
U.S. Forest Service SRS/FIA



FIA Sample Plots on Alabama Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

-  Timberland Plots
-  U.S. Forest Service
-  Department of Defense
-  U.S. Fish and Wildlife
-  Army Corp of Engineers
-  National Park Service
-  TVA



21,600,000 acres
of Non-Federal Timberland



Fuzzed-Swapped Plots



Alabama Forestry Commission



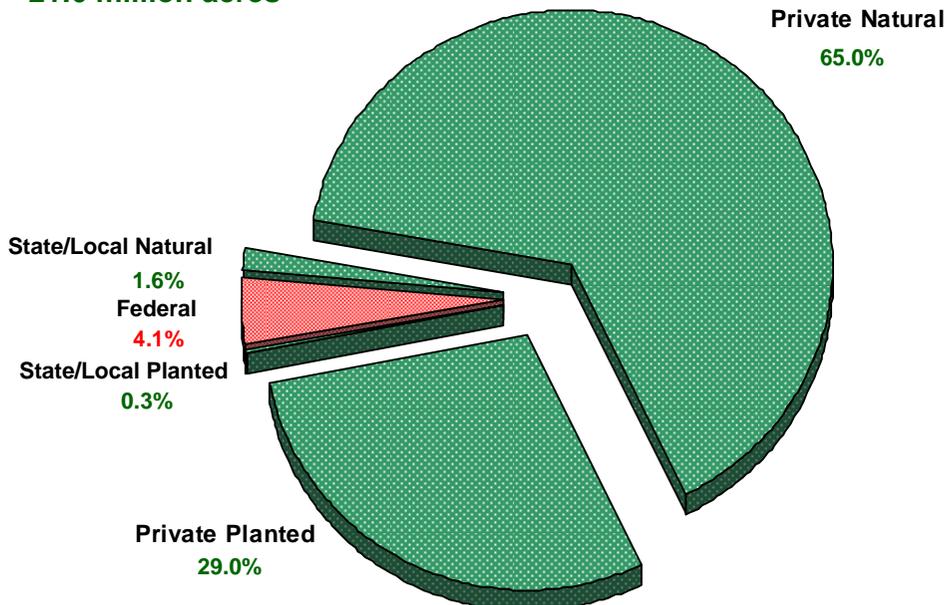
USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis
Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>
Produced March 9, 2009, Author: Spatial Data Services



Acres of Timberland in Alabama Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
21.6 million acres

21.6 million ac. (96%) = Qualifying
0.9 million ac. (4%) = Nonqualifying
22.5 million ac. = All Timberland

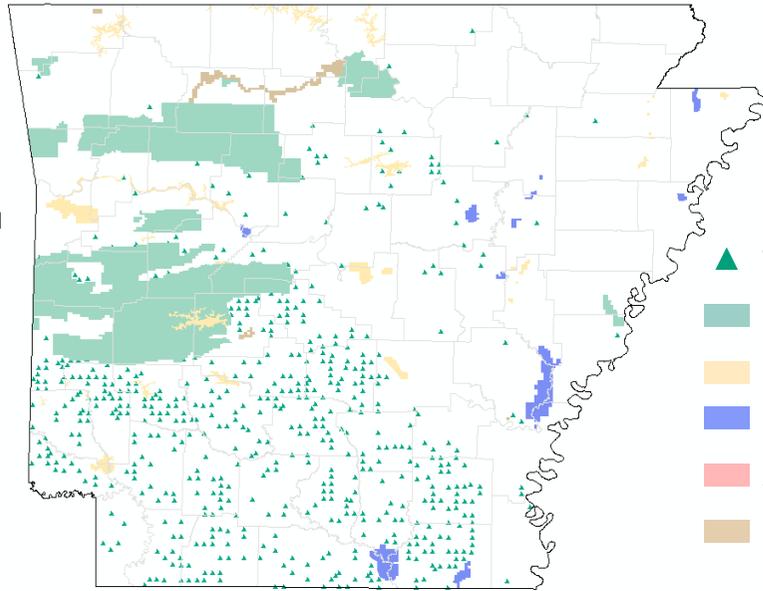


Source: Alabama Forestry Commission
U.S. Forest Service SRS/FIA



FIA Sample Plots on Arkansas Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

3,000,000 acres
of Artificially Regenerated
Timberland



- ▲ Timberland Plots
- U.S. Forest Service
- Department of Defense
- U.S. Fish and Wildlife
- Army Corp of Engineers
- National Park Service

Fuzzed-Swapped Plots



Arkansas Forestry Commission



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis

Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadp/>

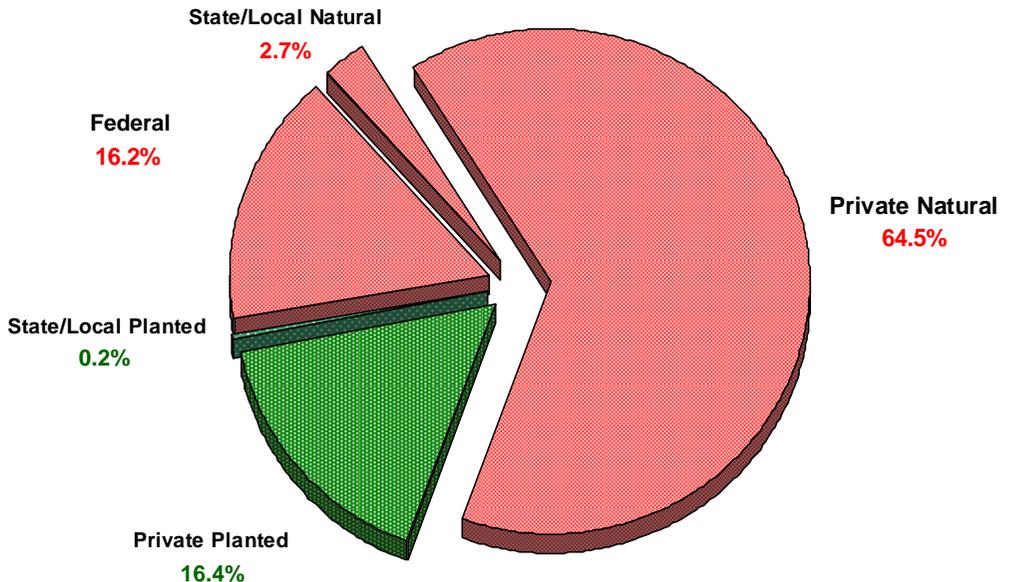
Produced March 9, 2009, Author: Spatial Data Services



Acres of Regenerated Timberland in Arkansas Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
3.0 million acres

3.0 million ac. (17%) = Qualifying
12.3 million ac. (67%) = Nonqualifying
2.9 million ac. (16%) = Federal Timberland
18.2 million ac. = All Timberland

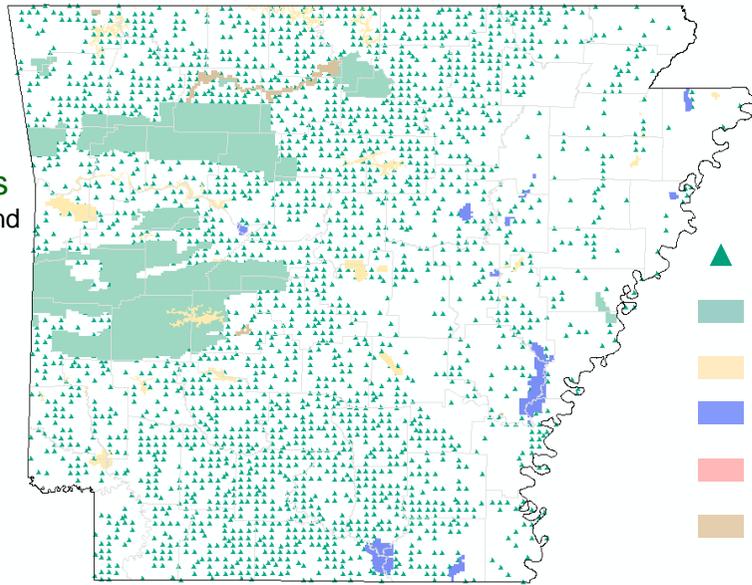


Source: Arkansas Forestry Commission
U.S. Forest Service SRS/FIA



FIA Sample Plots on Arkansas Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

15,300,000 acres
Non-Federal Timberland



Fuzzed-Swapped Plots

- ▲ Timberland Plots
- U.S. Forest Service
- Department of Defense
- U.S. Fish and Wildlife
- Army Corp of Engineers
- National Park Service



Arkansas Forestry Commission



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis

Sources: USDA Forest Service, 2009

Visit: <http://www.nrcs.fs.fed.us/4801/fiad/>

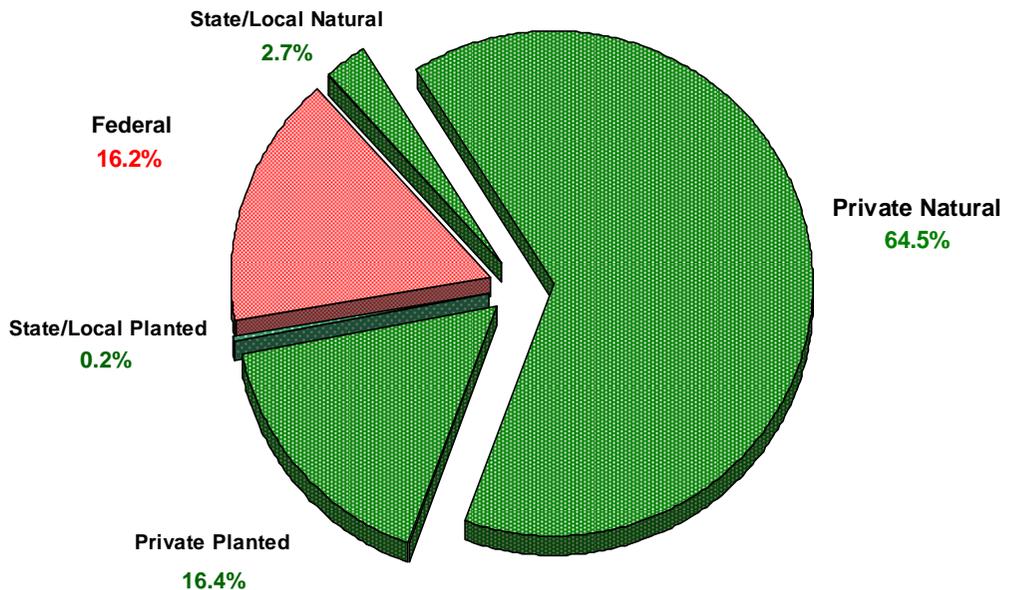
Produced March 9, 2009, Author: Spatial Data Services



Acres of Timberland in Arkansas Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
15.3 million acres

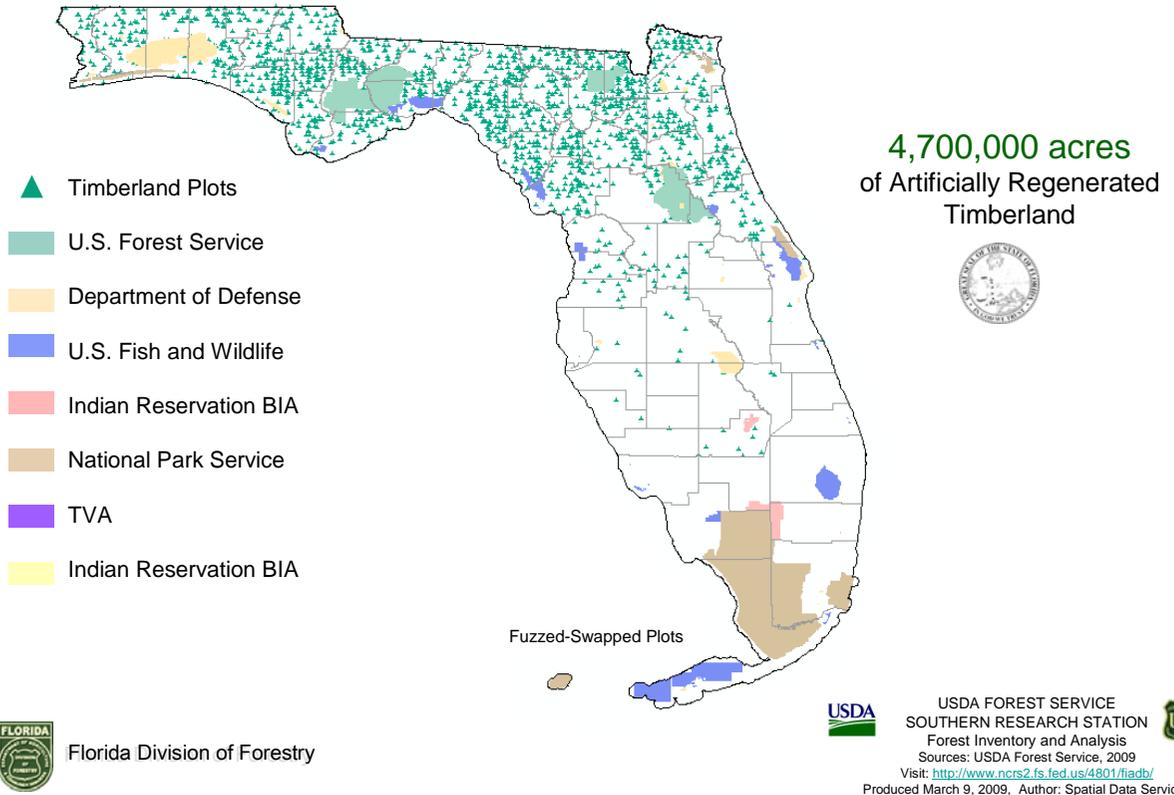
15.3 million ac. (84%) = Qualifying
2.9 million ac. (16%) = Nonqualifying
18.2 million ac. = All Timberland



Source: Arkansas Forestry Commission
U.S. Forest Service SRS/FIA



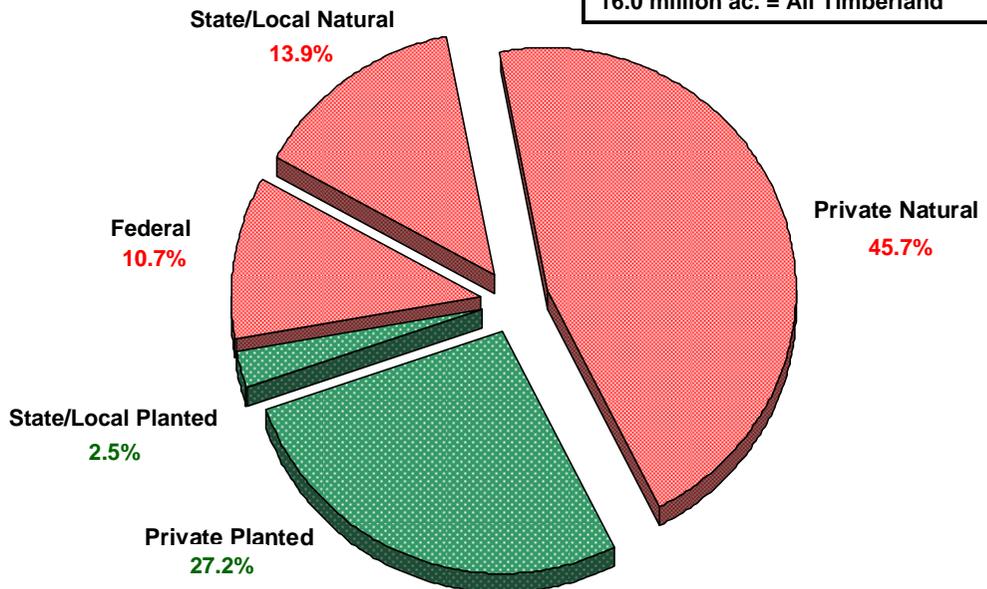
FIA Sample Plots on Florida Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act



Acres of Timberland in Florida Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
4.7 million acres

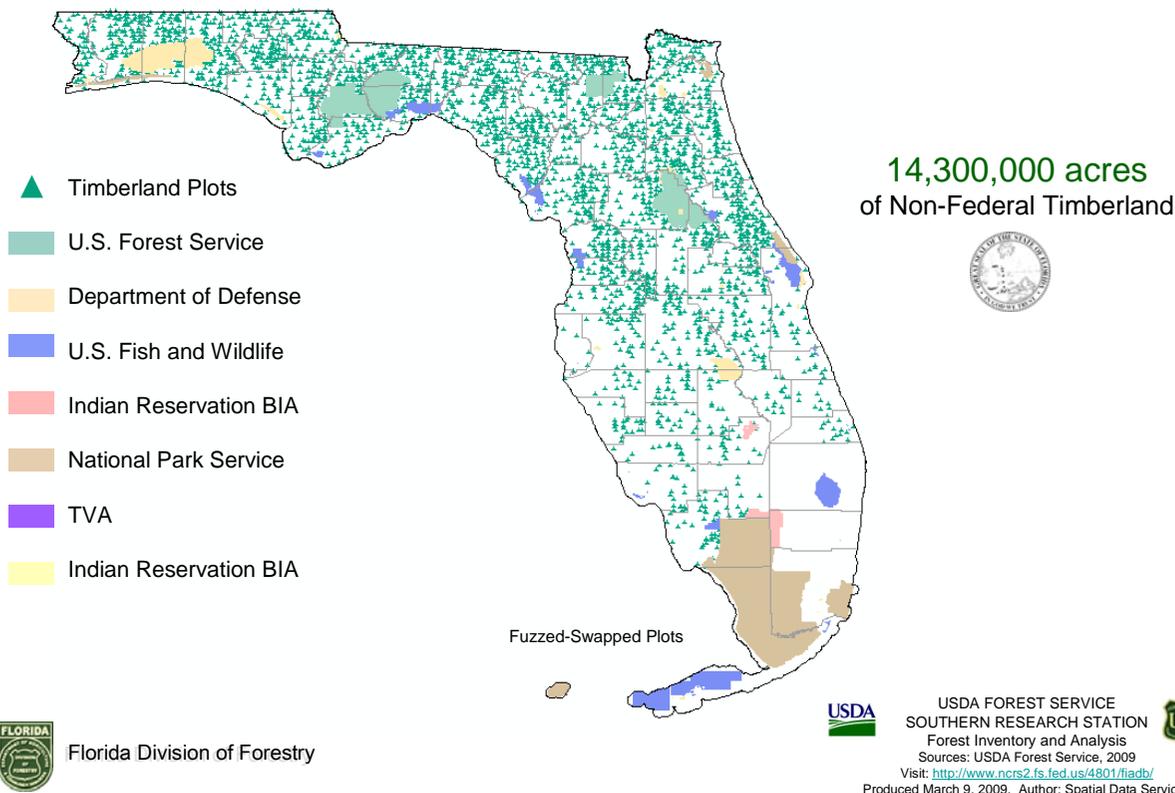
4.7 million ac. (30%) = Qualifying
9.6 million ac. (59%) = Nonqualifying
1.7 million ac. (11%) = Federal Timberland
16.0 million ac. = All Timberland



Source: Florida Division of Forestry
U.S. Forest Service SRS/FIA



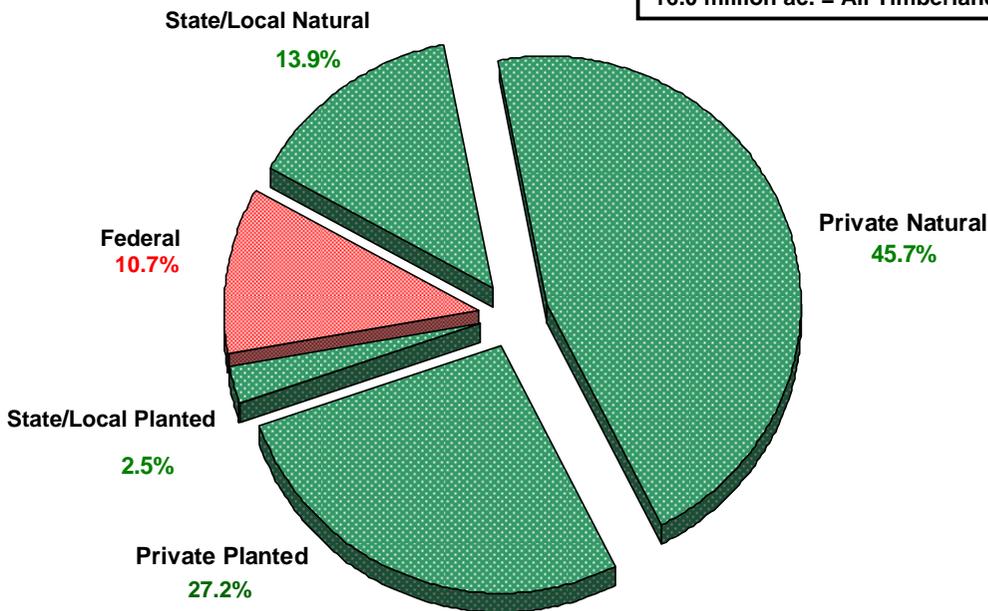
FIA Sample Plots on Florida Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill



Acres of Timberland in Florida Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
14.3 million acres

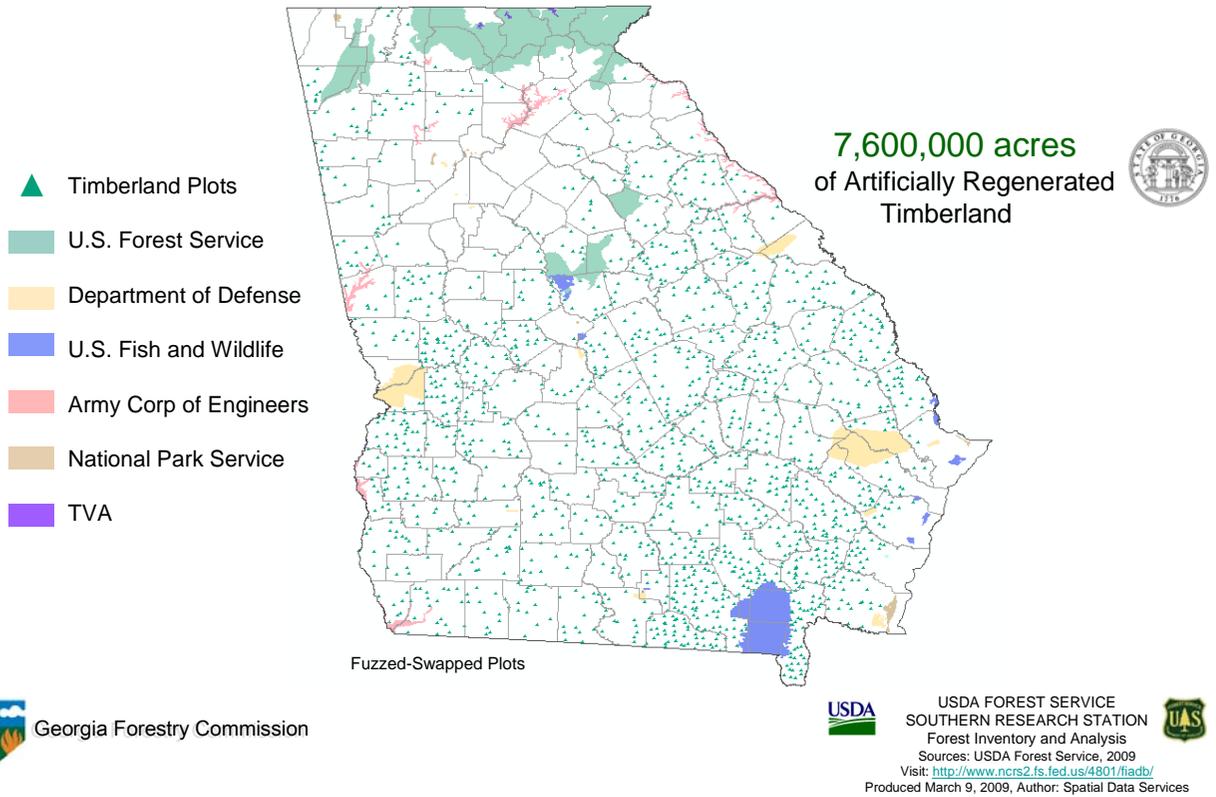
14.3 million ac. (89%) = Qualifying
1.7 million ac. (11%) = Nonqualifying
16.0 million ac. = All Timberland



Source: Florida Division of Forestry
U.S. Forest Service SRS/FIA



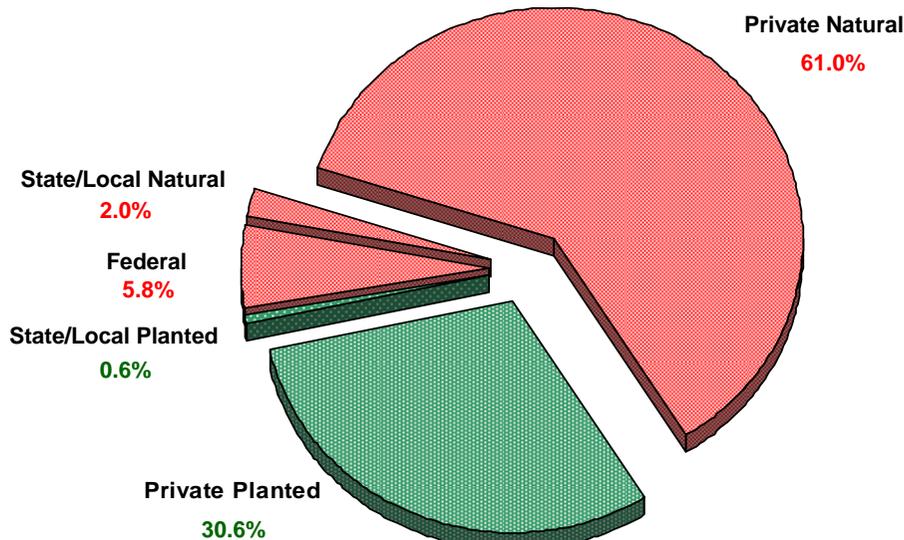
FIA Sample Plots on Georgia Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act



Acres of Timberland in Georgia Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
7.6 million acres

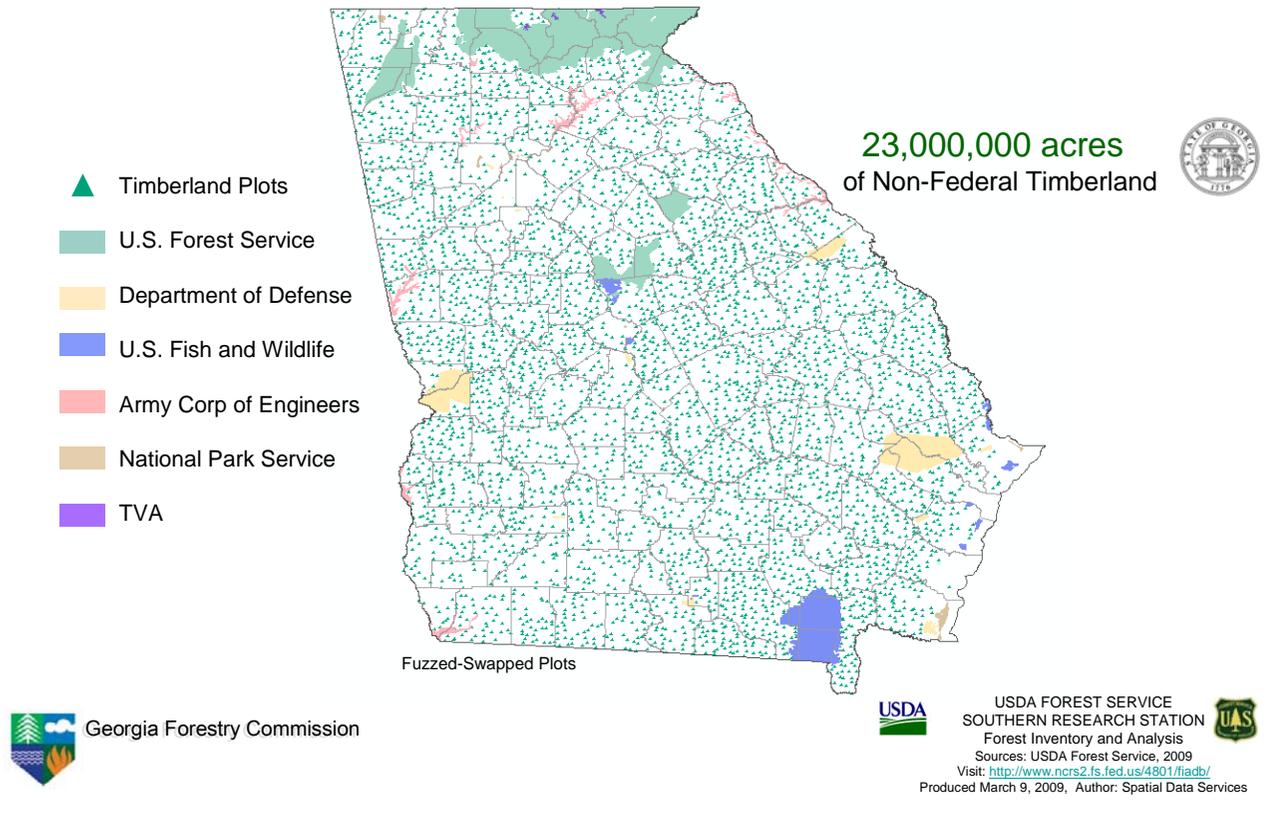
7.6 million ac. (31%) = Qualifying
15.4 million ac. (63%) = Nonqualifying
1.4 million ac. (6%) = Federal Timberland
24.4 million ac. = All Timberland



Source: Georgia Forestry Commission
U.S. Forest Service, SRS/FIA



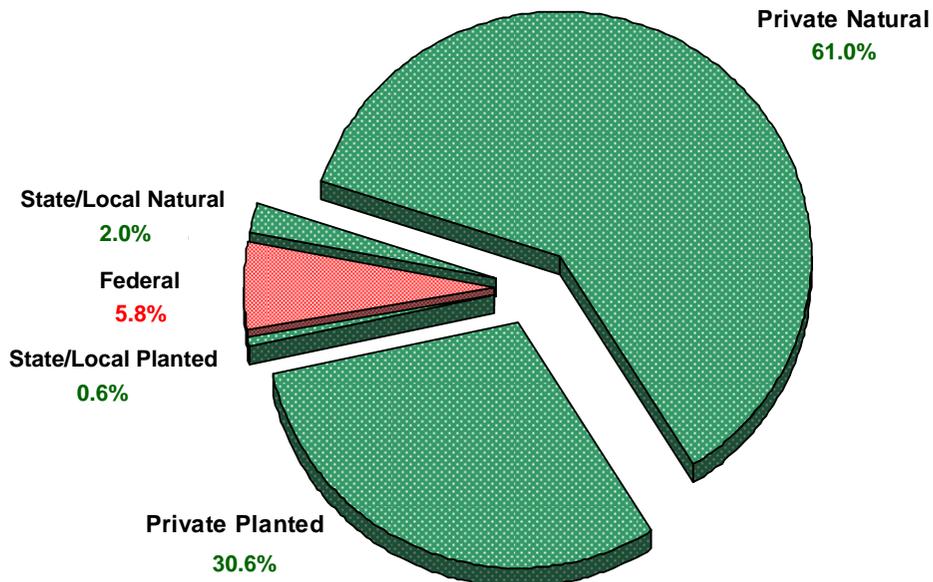
FIA Sample Plots on Georgia Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill



Acres of Timberland in Georgia Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
23.0 million acres

23.0 million ac. (94%) = Qualifying
1.4 million ac. (6%) = Nonqualifying
24.4 million ac. = All Timberland

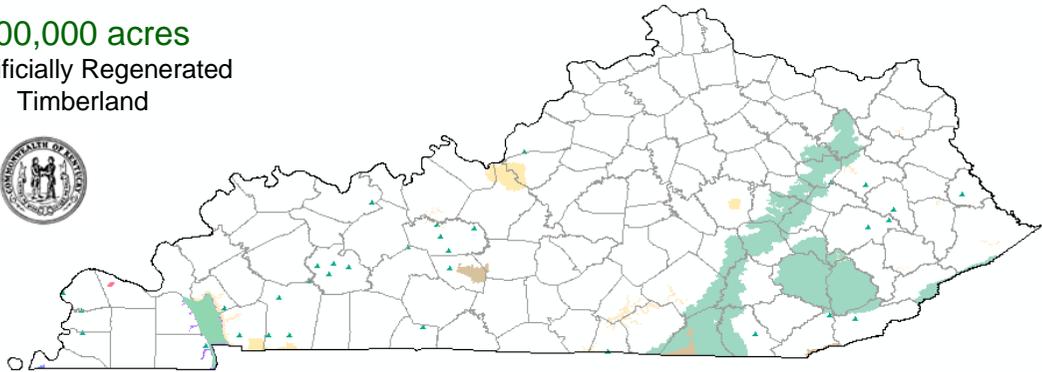


Source: Georgia Forestry Commission
U.S. Forest Service, SRS/FIA



FIA Sample Plots on Kentucky Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

100,000 acres
of Artificially Regenerated
Timberland



Fuzzed-Swapped Plots

- ▲ Timberland Plots
- U.S. Forest Service
- Department of Defense
- U.S. Fish and Wildlife
- Department of Energy DOE
- National Park Service
- TVA



Kentucky Division of Forestry



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Forest Inventory and Analysis



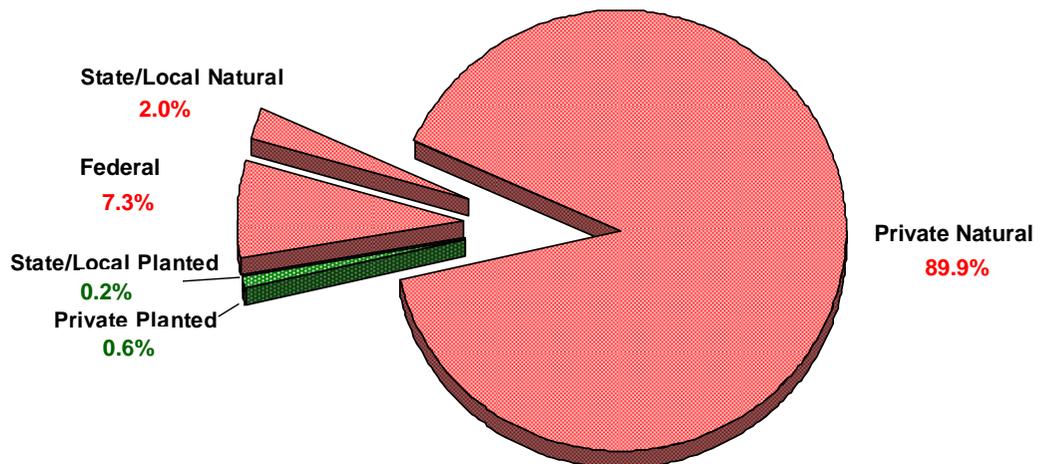
Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadby/>

Produced March 9, 2009, Author: Spatial Data Services

Acres of Timberland in Kentucky Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
0.1 million acres

0.1 million ac. (1%) = Qualifying
10.9 million ac. (92%) = Nonqualifying
0.8 million ac. (7%) = Federal Timberland
11.8 million ac. = All Timberland

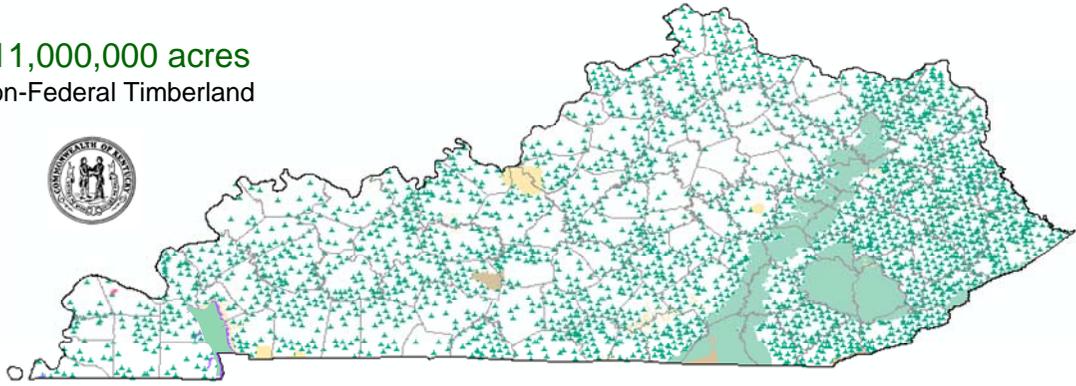


Source: Kentucky Division of Forestry
U.S. Forest Service SRS/FIA



FIA Sample Plots on Kentucky Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

11,000,000 acres
Non-Federal Timberland



Fuzzed-Swapped Plots



- ▲ Timberland Plots
- U.S. Forest Service
- Department of Defense
- U.S. Fish and Wildlife
- Department of Energy DOE
- National Park Service
- TVA



Kentucky Division of Forestry



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Forest Inventory and Analysis



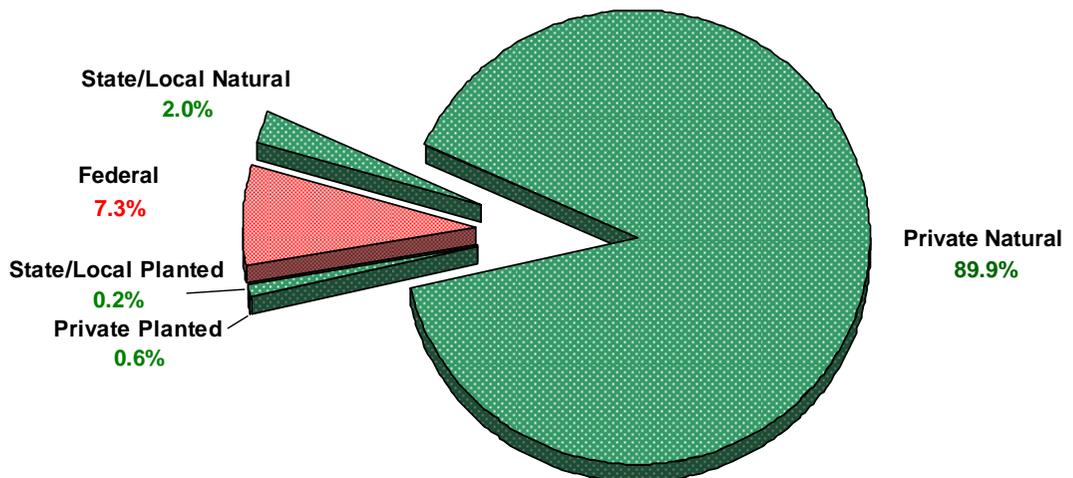
Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadby/>

Produced March 9, 2009, Author: Spatial Data Services

Acres of Timberland in Kentucky Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
11.0 million acres

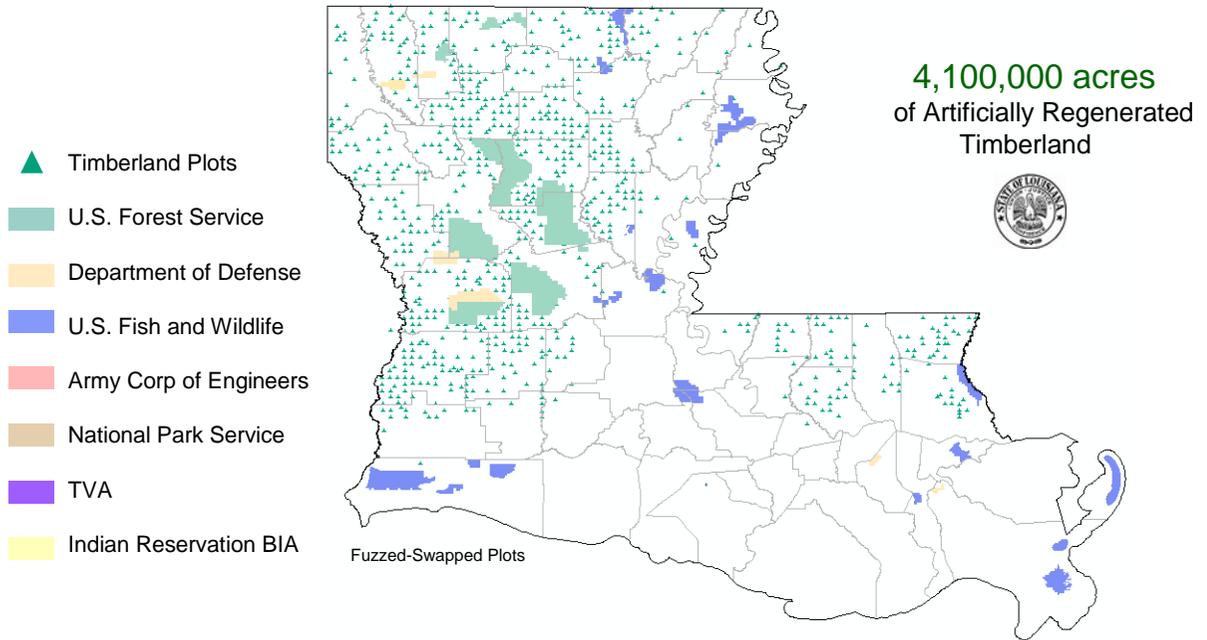
11.0 million ac. (93%) = Qualifying
0.8 million ac. (7%) = Nonqualifying
11.8 million ac. = All Timberland



Source: Kentucky Division of Forestry
U.S. Forest Service SRS/FIA



FIA Sample Plots on Louisiana Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act



Louisiana Department of Agriculture and Forestry



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis

Sources: USDA Forest Service, 2009

Visit: <http://www.ncrs2.fs.fed.us/4801/fiab/>

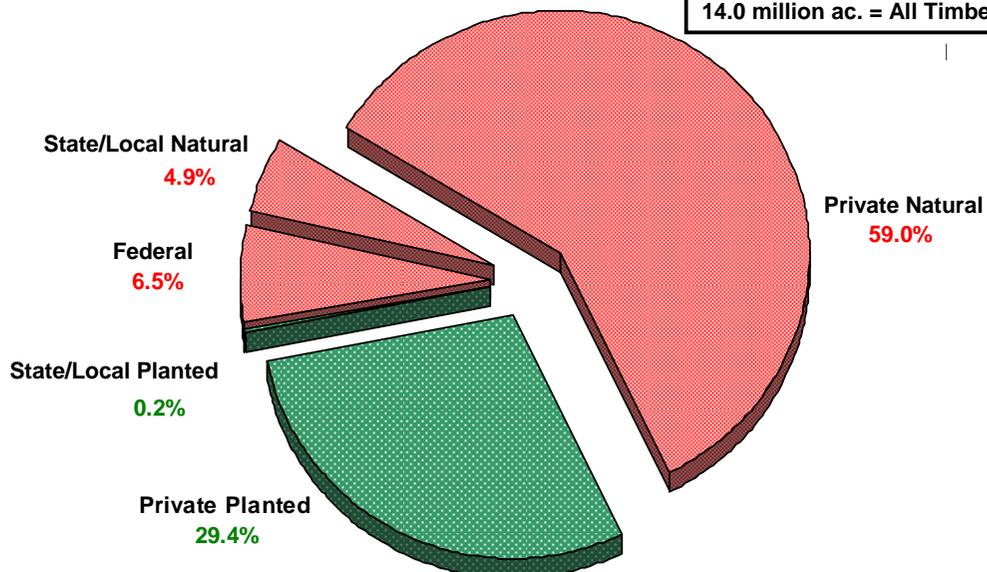
Produced March 9, 2009, Author: Spatial Data Services



Acres of Timberland in Louisiana Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
4.1 million acres

4.1 million ac. (30%) = Qualifying
9.0 million ac. (64%) = Nonqualifying
0.9 million ac. (6%) = Federal Timberland
14.0 million ac. = All Timberland

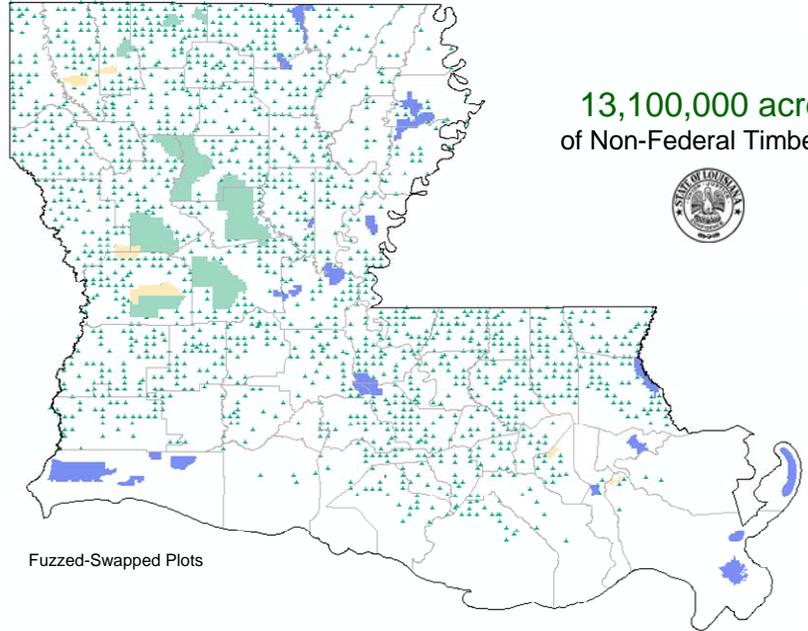


Source: Louisiana Department of Ag and Forestry
U.S. Forest Service, SRS/FIA



FIA Sample Plots on Louisiana Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

-  Timberland Plots
-  U.S. Forest Service
-  Department of Defense
-  U.S. Fish and Wildlife
-  Army Corp of Engineers
-  National Park Service
-  TVA
-  Indian Reservation BIA



13,100,000 acres
of Non-Federal Timberland



Louisiana Department of Agriculture and Forestry



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis

Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>

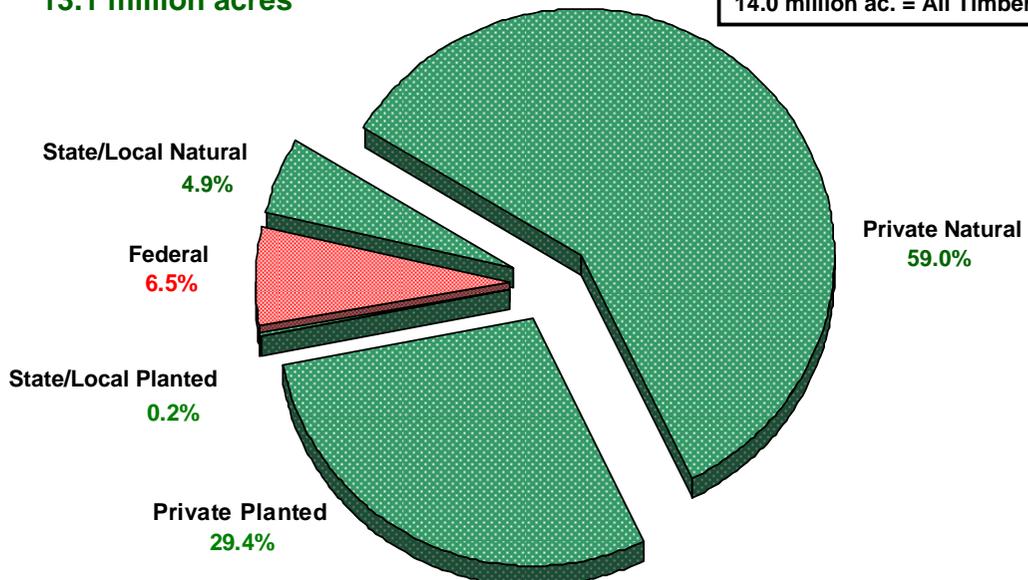
Produced March 9, 2009, Author: Spatial Data Services



Acres of Timberland in Louisiana Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
13.1 million acres

13.1 million ac. (94%) = Qualifying
0.9 million ac. (6%) = Nonqualifying
14.0 million ac. = All Timberland

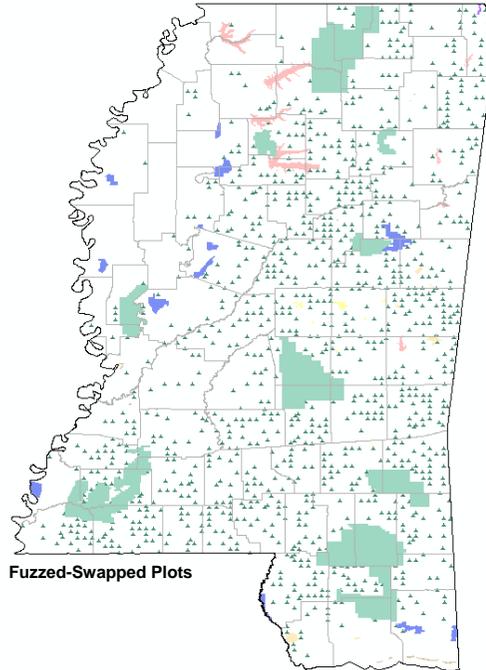


Source: Louisiana Department of Ag and Forestry
U.S. Forest Service, SRS/FIA



FIA Sample Plots on Mississippi Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

-  Timberland Plots
-  U.S. Forest Service
-  Department of Defense
-  U.S. Fish and Wildlife
-  Army Corp of Engineers
-  National Park Service
-  TVA
-  Indian Reservation BIA



5,300,000 acres
of Artificially Regenerated
Timberland



Mississippi Forestry Commission



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis

Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>

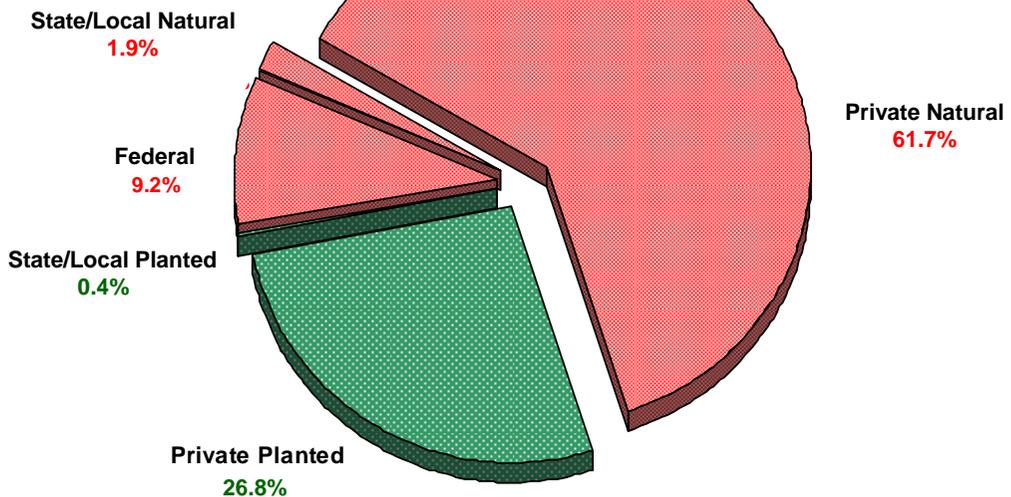
Produced March 9, 2009, Author: Spatial Data Services



Acre of Timberland in Mississippi Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
5.3 million acres

5.3 million ac. (27%) = Qualifying
12.4 million ac. (64%) = Nonqualifying
1.8 million ac. (9%) = Federal Timberland
19.5 million ac. = All Timberland

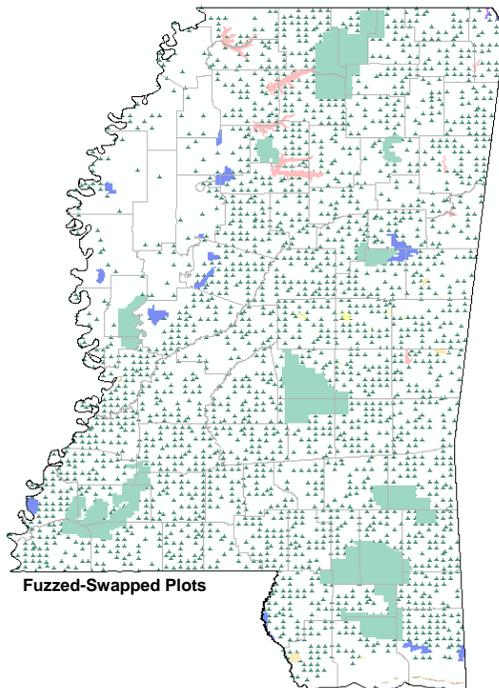


Source: Mississippi Forestry Commission
U.S. Forest Service SRS/FIA



FIA Sample Plots on Mississippi Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

-  Timberland Plots
-  U.S. Forest Service
-  Department of Defense
-  U.S. Fish and Wildlife
-  Army Corp of Engineers
-  National Park Service
-  TVA
-  Indian Reservation BIA



17,700,000 acres
of Non-Federal Timberland



Mississippi Forestry Commission



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION

Forest Inventory and Analysis

Sources: USDA Forest Service, 2009

Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>

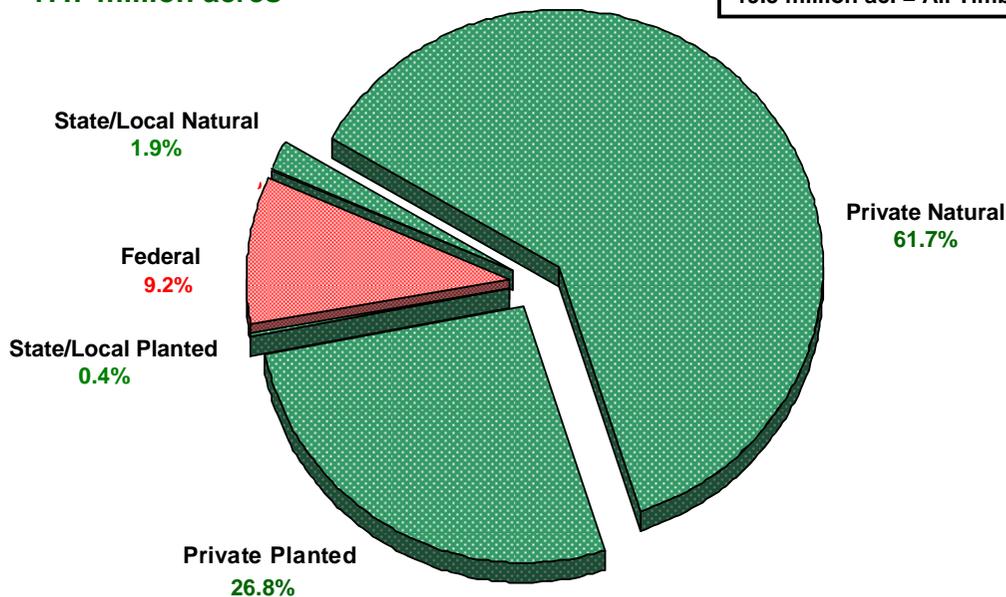
Produced March 9, 2009, Author: Spatial Data Services



Acre of Timberland in Mississippi Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
17.7 million acres

17.7 million ac. (91%) = Qualifying
1.8 million ac. (9%) = Nonqualifying
19.5 million ac. = All Timberland

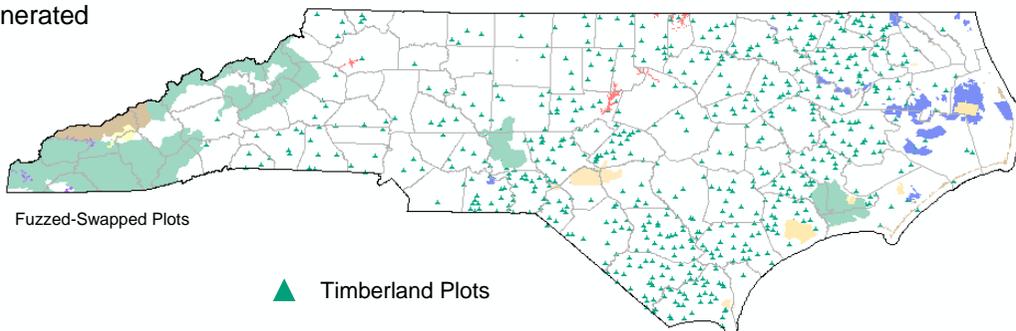


Source: Mississippi Forestry Commission
U.S. Forest Service SRS/FIA



FIA Sample Plots on North Carolina Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

3,300,000 acres
of Artificially Regenerated
Timberland



Fuzzed-Swapped Plots

- ▲ Timberland Plots
- U.S. Forest Service
- Department of Defense
- U.S. Fish and Wildlife
- Army Corp of Engineers
- National Park Service
- TVA
- Trust Land BIA



North Carolina Forest Service



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Forest Inventory and Analysis

Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>

Produced March 9, 2009, Author: Spatial Data Services



Acres of Timberland in North Carolina Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
3.3 million acres

3.3 million ac. (18%) = Qualifying
13.1 million ac. (73%) = Nonqualifying
1.7 million ac. (9%) = Federal Timberland
18.1 million ac. = All Timberland

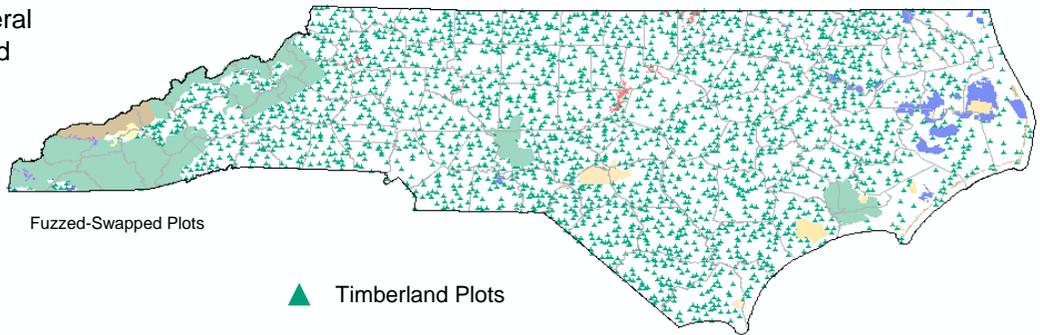


Source: North Carolina Forest Service
U.S. Forest Service SRS/FIA



FIA Sample Plots on North Carolina Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

16,400,000 acres
of Non-Federal
Timberland



Fuzzed-Swapped Plots

- ▲ Timberland Plots
- U.S. Forest Service
- Department of Defense
- U.S. Fish and Wildlife
- Army Corp of Engineers
- National Park Service
- TVA
- Trust Land BIA



North Carolina Forest Service



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION

Forest Inventory and Analysis

Sources: USDA Forest Service, 2009

Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>

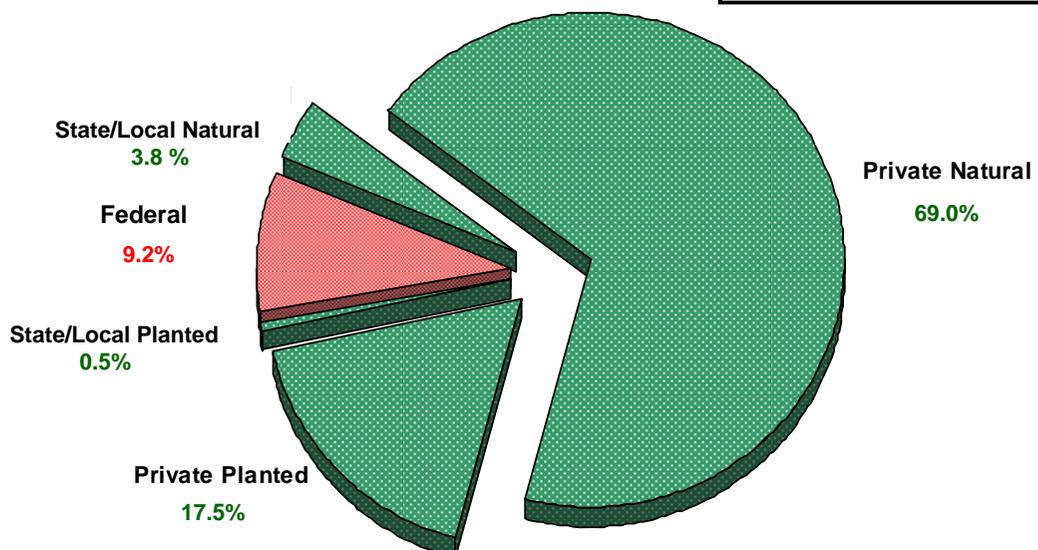
Produced March 9, 2009, Author: Spatial Data Services



Acres of Timberland in North Carolina Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
16.4 million acres

16.4 million ac. (91%) = Qualifying
1.7 million ac. (9%) = Nonqualifying
18.1 million ac. = All Timberland

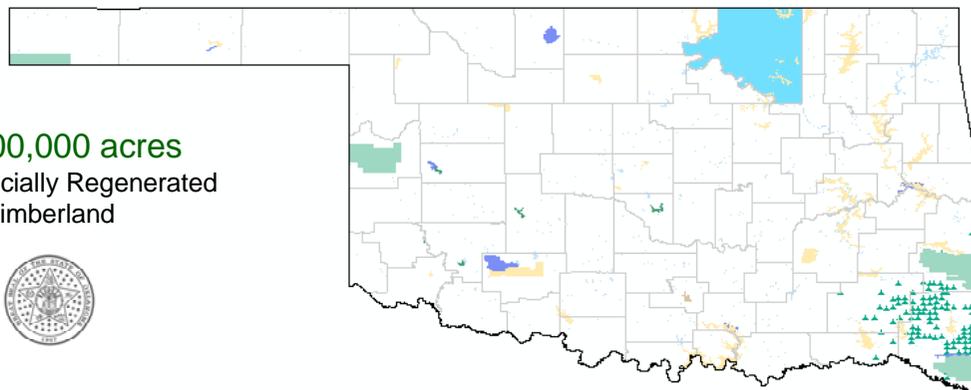


Source: North Carolina Forest Service
U.S. Forest Service SRS/FIA



FIA Sample Plots on East Oklahoma Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

600,000 acres
of Artificially Regenerated
Timberland



- ▲ Timberland Plots
- U.S. Forest Service
- Department of Defense
- U.S. Fish and Wildlife
- Department of Energy DOE
- National Park Service



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis



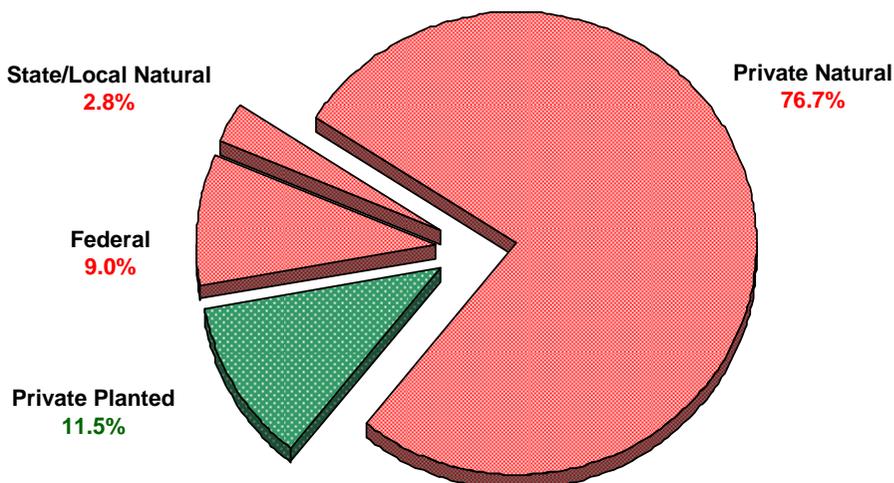
Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>

Produced March 9, 2009, Author: Spatial Data Services

Acres of Timberland in East Oklahoma Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
0.6 million acres

0.6 million ac. (11%) = Qualifying
3.9 million ac. (80%) = Nonqualifying
0.4 million ac. (9%) = Federal Timberland
4.9 million ac. = All Timberland

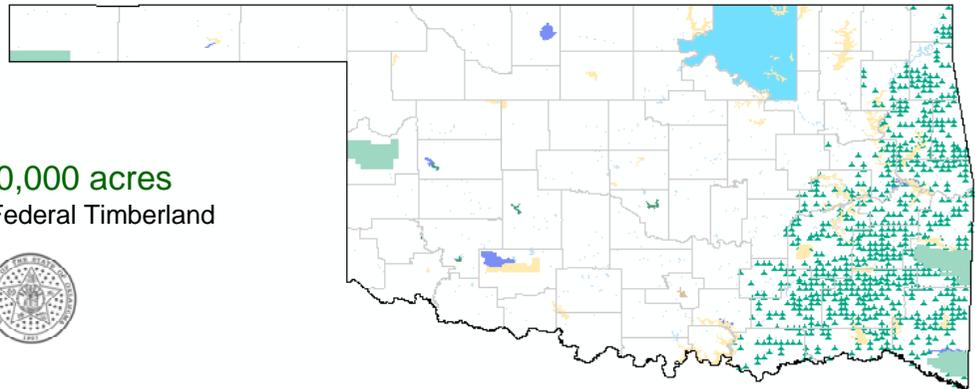


Source: Oklahoma Forestry Service
U.S. Forest Service, SRS/FIA



FIA Sample Plots on East Oklahoma Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

4,500,000 acres
of Non-Federal Timberland



- Timberland Plots
- U.S. Forest Service
- Department of Defense
- U.S. Fish and Wildlife
- Department of Energy DOE
- National Park Service

Fuzzed-Swapped Plots



Oklahoma Forestry Service



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis

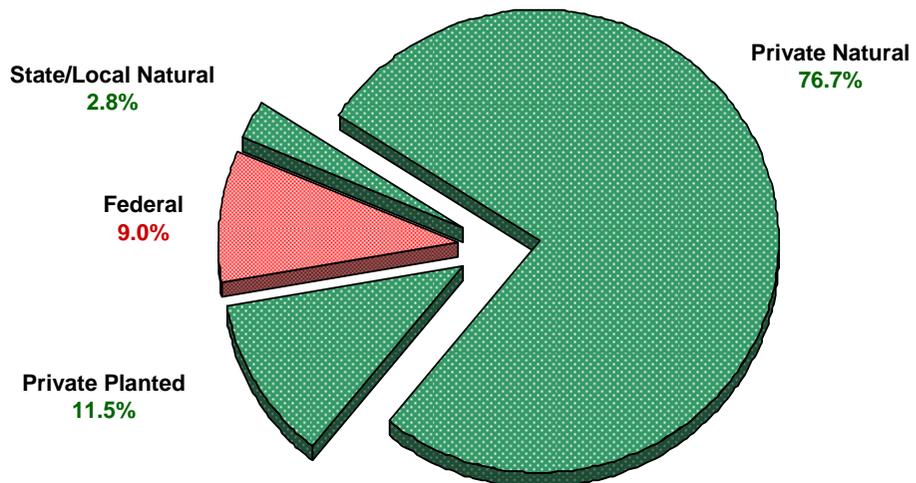
Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>
Produced March 9, 2009, Author: Spatial Data Services



Acres of Timberland in East Oklahoma Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
4.5 million acres

4.5 million ac. (91%) = Qualifying
0.4 million ac. (9%) = Nonqualifying
4.9 million ac. = All Timberland

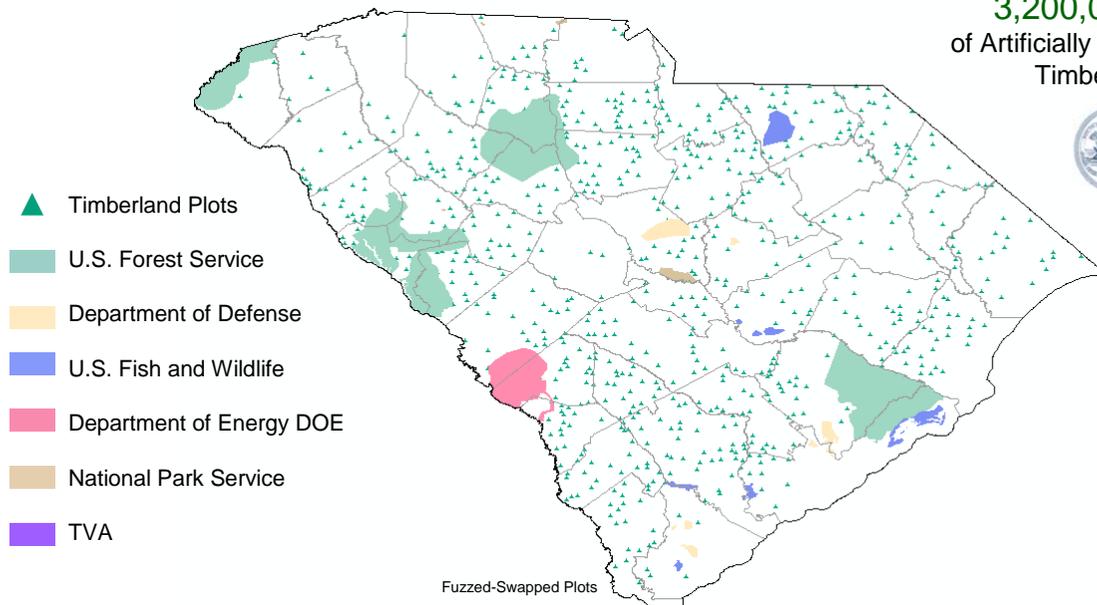


Source: Oklahoma Forestry Service
U.S. Forest Service, SRS/FIA



FIA Sample Plots on South Carolina Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

3,200,000 acres
of Artificially Regenerated
Timberland



South Carolina Forestry Commission



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION

Forest Inventory and Analysis

Sources: USDA Forest Service, 2009

Visit: <http://www.ncrs2.fs.fed.us/4801/fiab/>

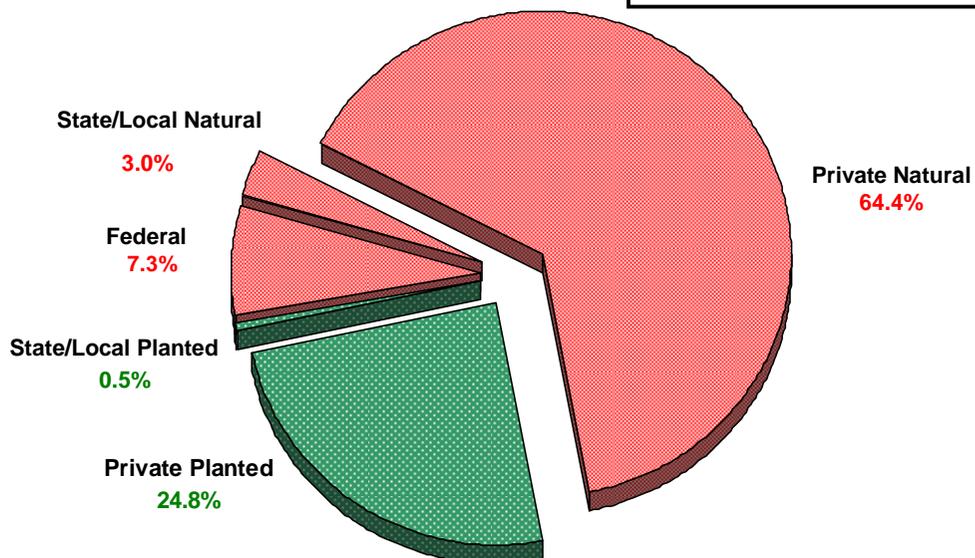
Produced March 9, 2009, Author: Spatial Data Services



Acres of Timberland in South Carolina Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
3.2 million acres

3.2 million ac. (25%) = Qualifying
8.7 million ac. (68%) = Nonqualifying
0.9 million ac. (7%) = Federal Timberland
12.8 million ac. = All Timberland



Source: South Carolina Forestry Commission
U.S. Forest Service SRS/FIA

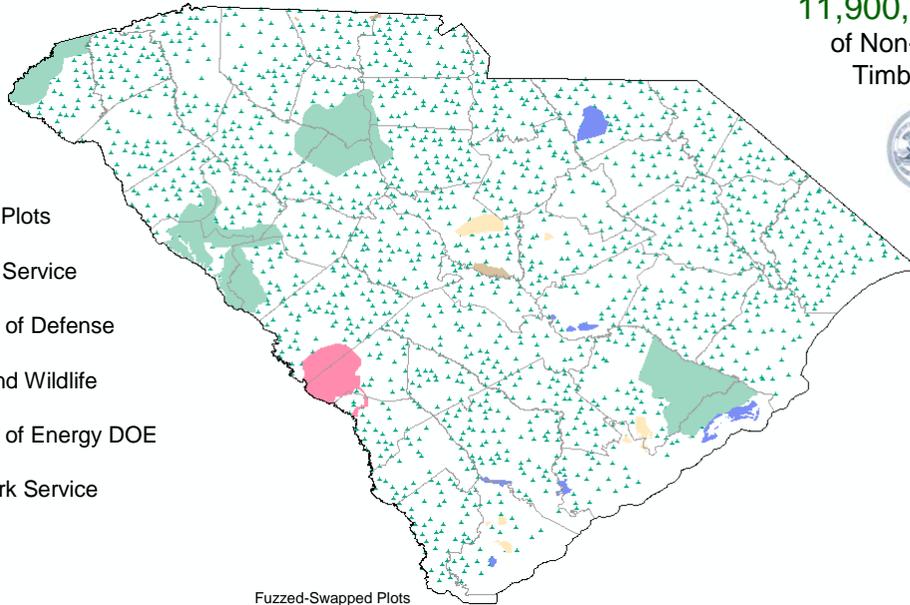


FIA Sample Plots on South Carolina Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

11,900,000 acres
of Non-Federal
Timberland



- ▲ Timberland Plots
- U.S. Forest Service
- Department of Defense
- U.S. Fish and Wildlife
- Department of Energy DOE
- National Park Service
- TVA



Fuzzed-Swapped Plots



South Carolina Forestry Commission



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis

Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>

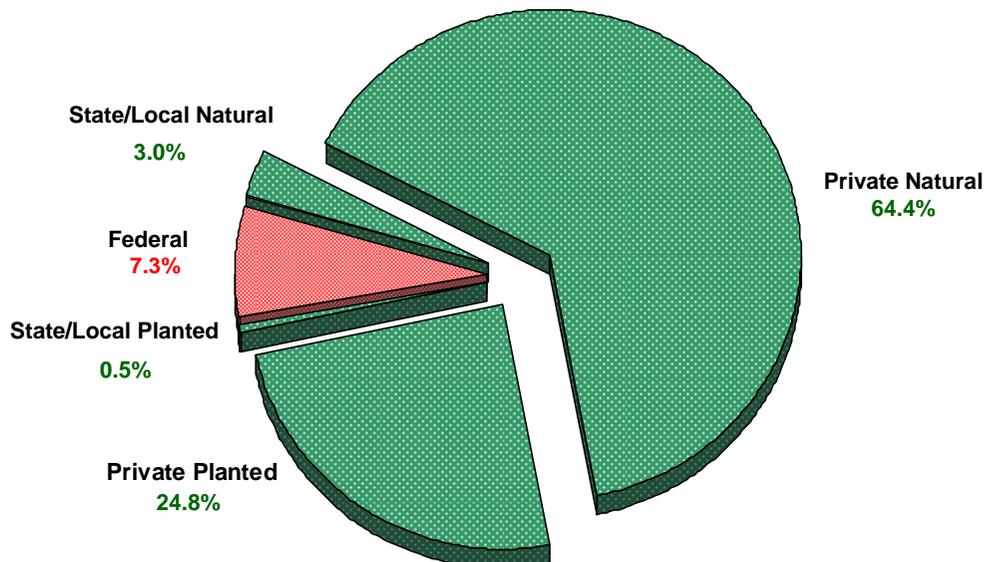
Produced March 9, 2009, Author: Spatial Data Services



Acres of Timberland in South Carolina Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
11.9 million acres

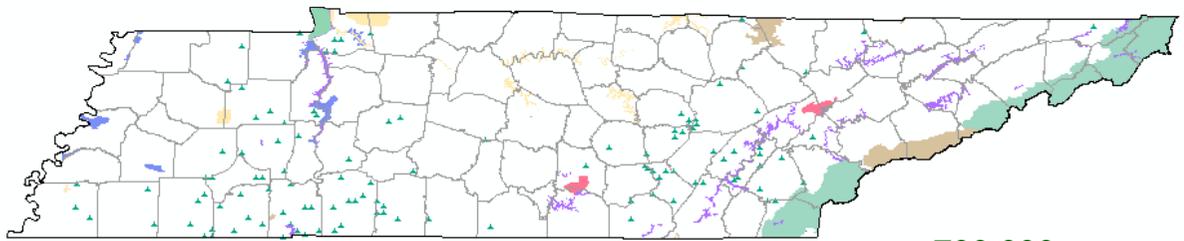
11.9 million ac. (93%) = Qualifying
0.9 million ac. (7%) = Nonqualifying
12.8 million ac. = All Timberland



Source: South Carolina Forestry Commission
U.S. Forest Service SRS/FIA



FIA Sample Plots on Tennessee Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act



Fuzzed-Swapped Plots

700,000 acres
of Artificially Regenerated
Timberland



- ▲ Timberland Plots
- U.S. Forest Service
- Department of Defense
- U.S. Fish and Wildlife
- Department of Energy DOE
- National Park Service
- TVA



Tennessee Forestry Division



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION

Forest Inventory and Analysis

Sources: USDA Forest Service, 2009

Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>

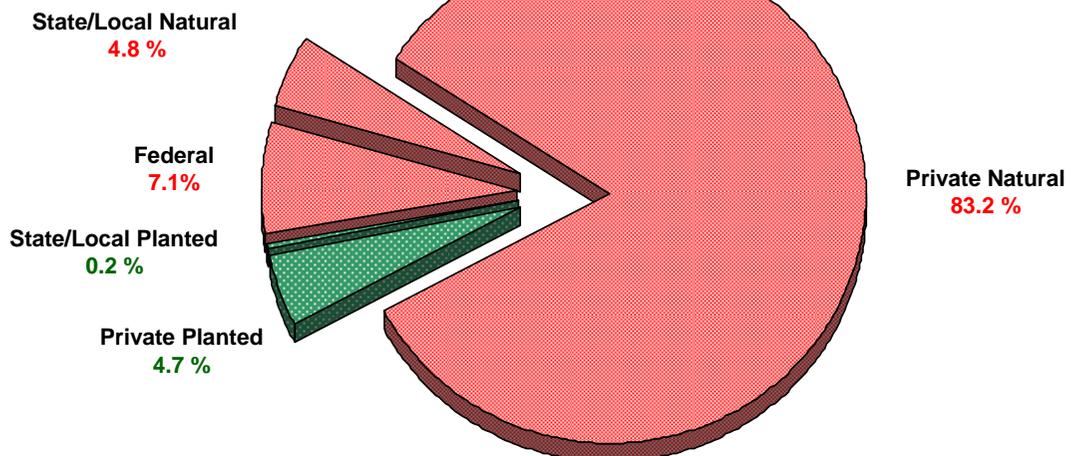
Produced March 9, 2009, Author: Spatial Data Services



Acres of Timberland in Tennessee Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
0.7 million acres

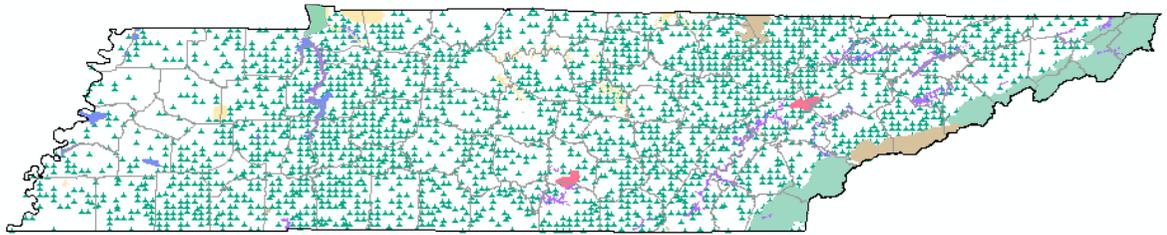
0.7 million ac. (5%) = Qualifying
11.8 million ac. (88%) = Nonqualifying
1.0 million ac. (7%) = Federal Timberland
13.5 million ac. = All Timberland



Source: Tennessee Forestry Division
U.S. Forest Service SRS/FIA



FIA Sample Plots on Tennessee Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill



Fuzzed-Swapped Plots

12,500,000 acres
of Non-Federal
Timberland

- ▲ Timberland Plots
- U.S. Forest Service
- Department of Defense
- U.S. Fish and Wildlife
- Department of Energy DOE
- National Park Service
- TVA



Tennessee Forestry Division



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis

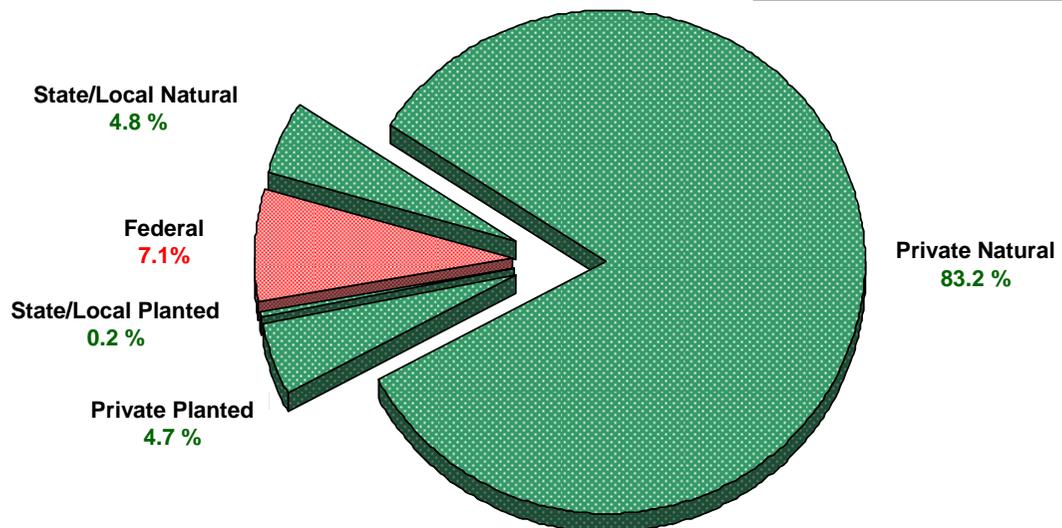


Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>
Produced March 9, 2009, Author: Spatial Data Services

Acres of Timberland in Tennessee Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
12.5 million acres

12.5 million ac. (93%) = Qualifying
1.0 million ac. (7%) = Nonqualifying
13.5 million ac. = All Timberland



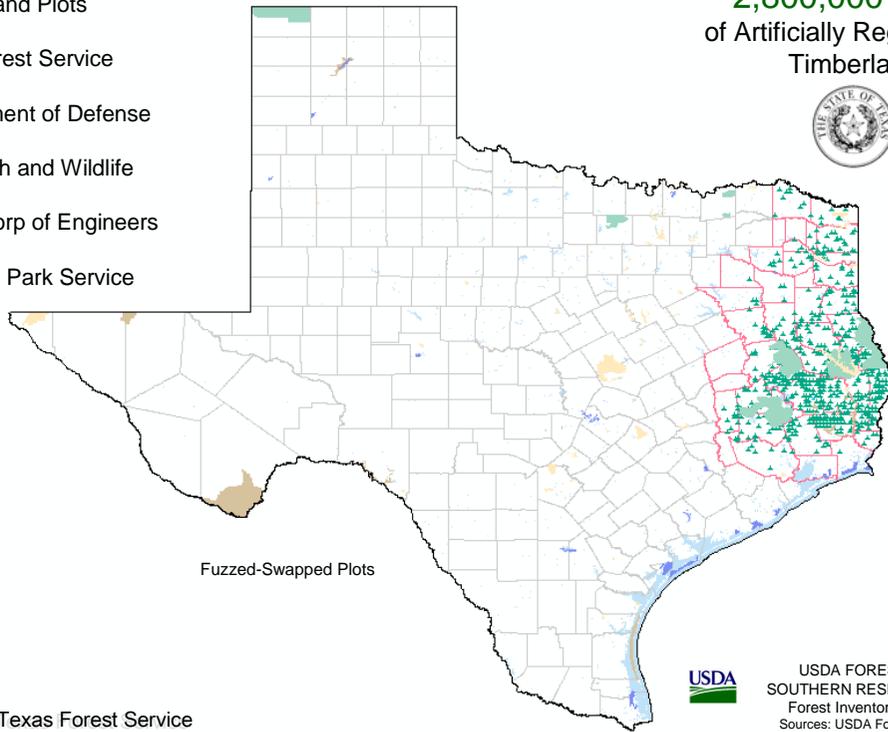
Source: Tennessee Forestry Division
U.S. Forest Service SRS/FIA



FIA Sample Plots on Texas Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

-  Timberland Plots
-  U.S. Forest Service
-  Department of Defense
-  U.S. Fish and Wildlife
-  Army Corp of Engineers
-  National Park Service

2,800,000 acres
of Artificially Regenerated
Timberland



TEXAS
FOREST SERVICE
The Texas A&M University System



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis

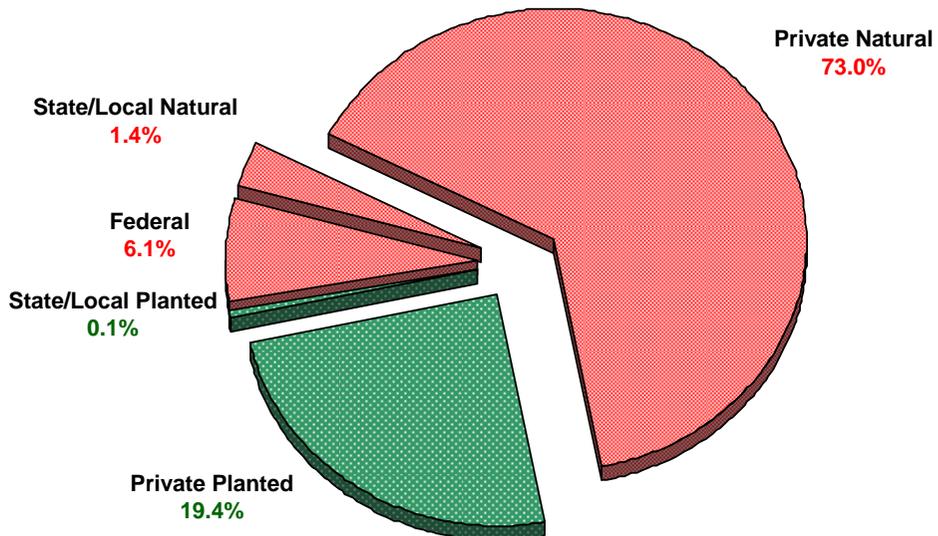


Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>
Produced April, 2009, Author: Spatial Data Services

Acres of Timberland in Texas Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
2.8 million acres

2.8 million ac. (19%) = Qualifying
10.9 million ac. (75%) = Nonqualifying
0.9 million ac. (6%) = Federal Timberland
14.6 million ac. = All Timberland



TEXAS
FOREST SERVICE
The Texas A&M University System

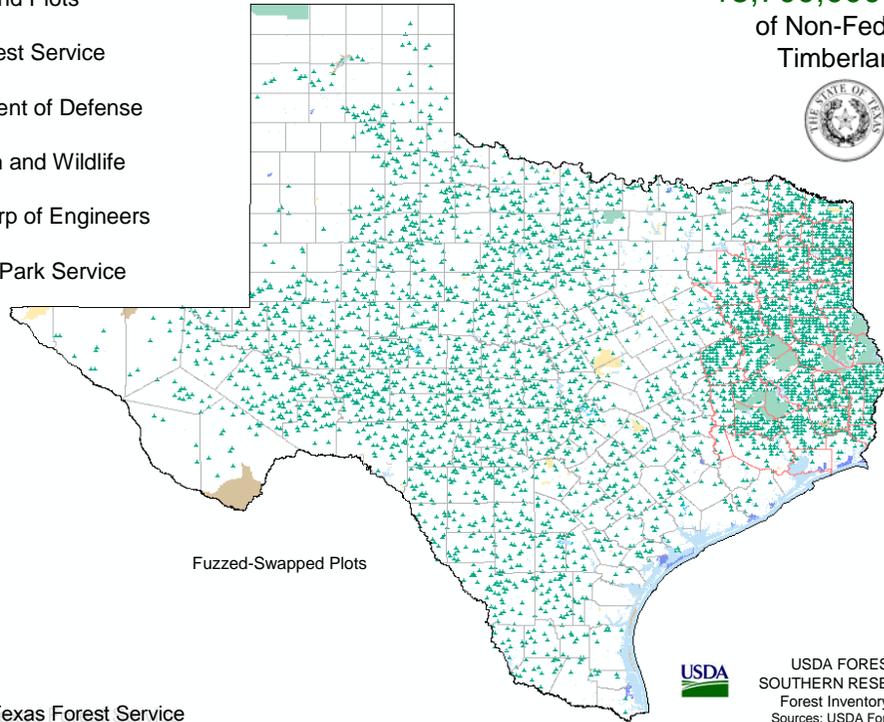
Source: Texas Forest Service
U.S. Forest Service, SRS/FIA



FIA Sample Plots on Texas Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

-  Timberland Plots
-  U.S. Forest Service
-  Department of Defense
-  U.S. Fish and Wildlife
-  Army Corp of Engineers
-  National Park Service

13,700,000 acres
of Non-Federal
Timberland



TEXAS
FOREST SERVICE
The Texas A&M University System



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis

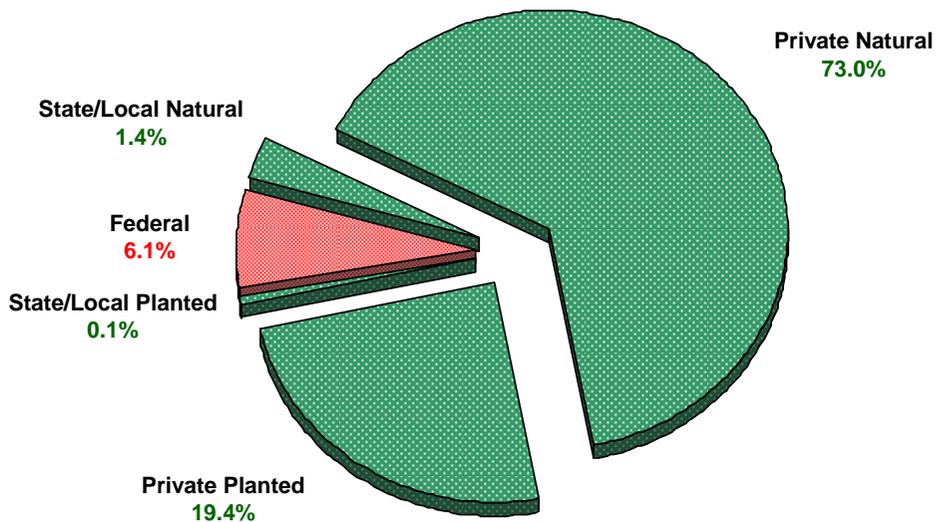


Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadby/>
Produced April 9, 2009, Author: Spatial Data Services

Acres of Timberland in Texas Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
13.7 million acres

13.7 million ac. (94%) = Qualifying
0.9 million ac. (6%) = Nonqualifying
14.6 million ac. = All Timberland



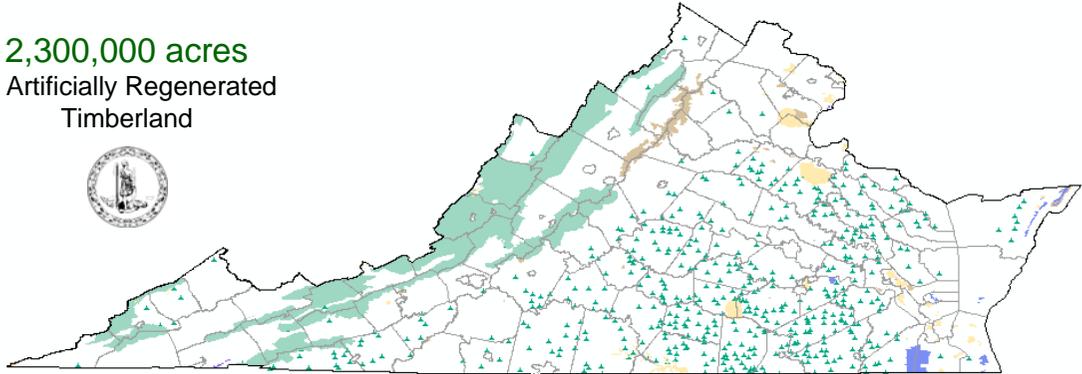
TEXAS
FOREST SERVICE
The Texas A&M University System

Source: Texas Forest Service
U.S. Forest Service, SRS/FIA



FIA Sample Plots on Virginia Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

2,300,000 acres
of Artificially Regenerated
Timberland



- ▲ Timberland Plots
- U.S. Forest Service
- Department of Defense
- U.S. Fish and Wildlife
- Army Corp of Engineers
- National Park Service
- TVA

Fuzzed-Swapped Plots



Virginia Department of Forestry



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis



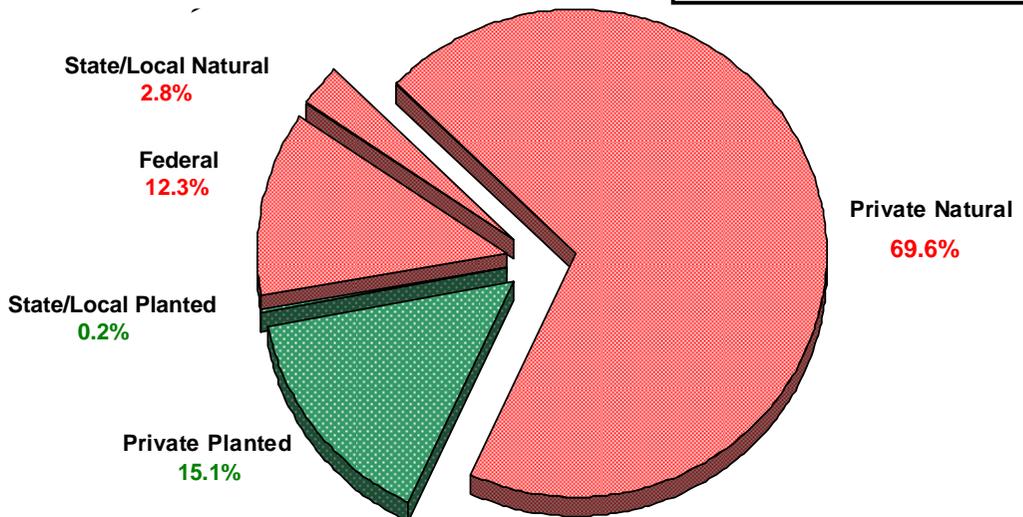
Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>

Produced March 9, 2009, Author: Spatial Data Services

Acres of Timberland in Virginia Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
2.3 million acres

2.3 million ac. (15%) = Qualifying
11.0 million ac. (73%) = Nonqualifying
1.9 million ac. (12%) = Federal Timberland
15.2 million ac. = All Timberland

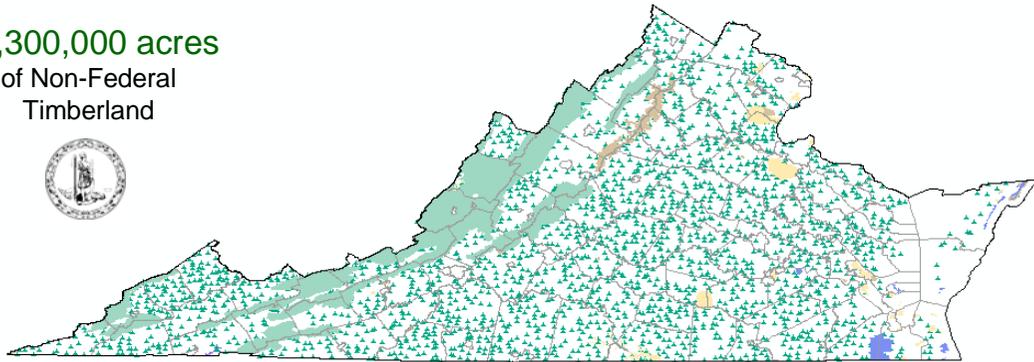


Source: Virginia Department of Forestry
U.S. Forest Service SRS/FIA



FIA Sample Plots on Virginia Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

13,300,000 acres
of Non-Federal
Timberland



Fuzzed-Swapped Plots

- ▲ Timberland Plots
- U.S. Forest Service
- Department of Defense
- U.S. Fish and Wildlife
- Army Corp of Engineers
- National Park Service
- TVA



Virginia Department of Forestry



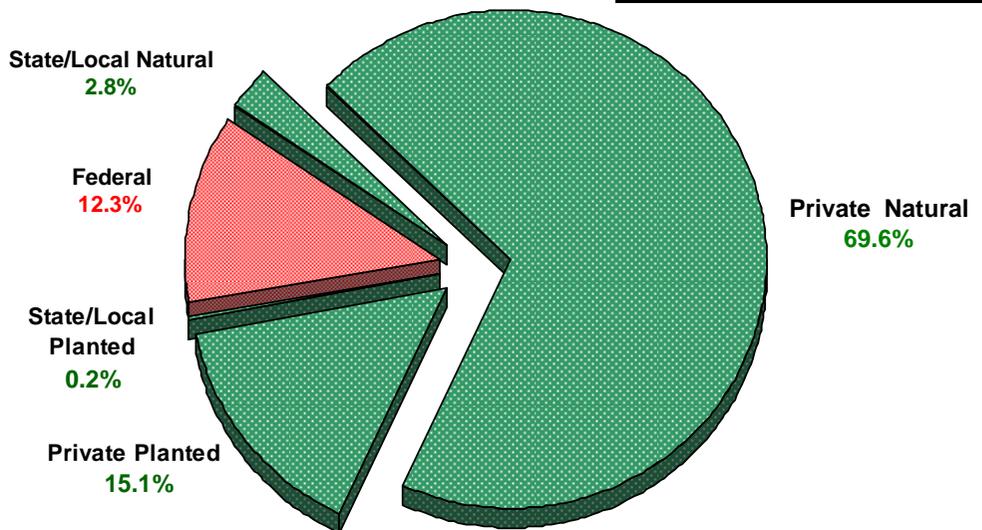
USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis
Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiab/>
Produced March 9, 2009, Author: Spatial Data Services



Acres of Timberland in Virginia Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
13.3 million acres

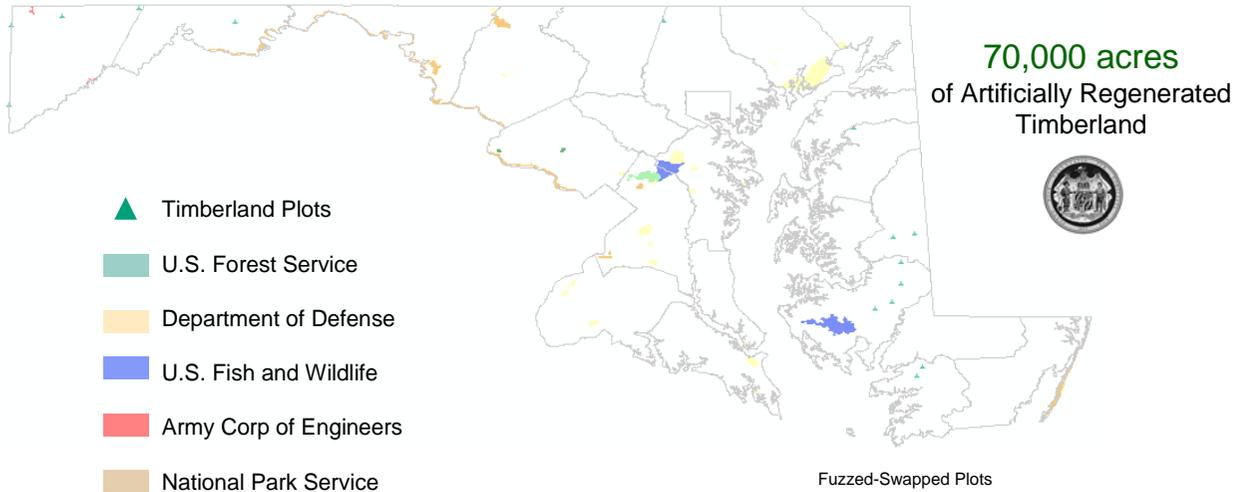
13.3 million ac. (88%) = Qualifying
1.9 million ac. (12%) = Nonqualifying
15.2 million ac. = All Timberland



Source: Virginia Department of Forestry
U.S. Forest Service SRS/FIA



FIA Sample Plots on Maryland Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act



Maryland Forest Service



USDA FOREST SERVICE
Northern Research Station



Forest Inventory and Analysis

Sources: USDA Forest Service, 2009

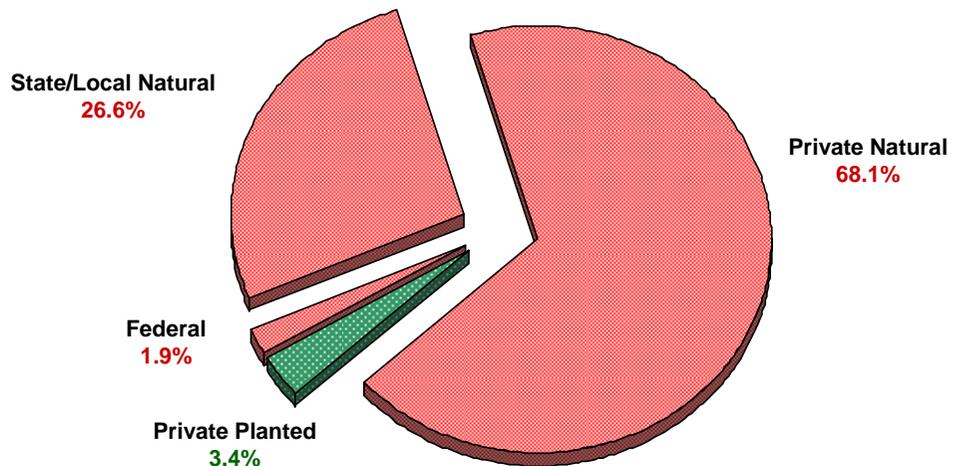
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadp/>

Produced April 29, 2009, Author: SRS/Spatial Data Services

Acres of Timberland in Maryland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
0.07 million acres

0.07 million ac. (3%) = Qualifying
2.1 million ac. (95%) = Nonqualifying
0.04 million ac. (2%) = Federal Timberland
2.2 million ac. = All Timberland



Source: Maryland Forest Service
U.S. Forest Service, SRS/FIA



FIA Sample Plots on Maryland Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill



2,200,000 acres
of Non-Federal Timberland



Maryland Forest Service



USDA FOREST SERVICE
Northern Research Station



Forest Inventory and Analysis

Sources: USDA Forest Service, 2009

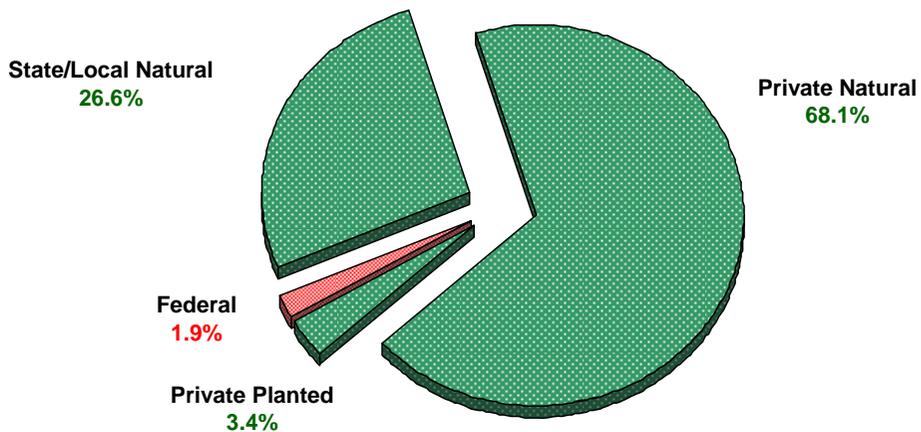
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadp/>

Produced April 29, 2009, Author: SRS/Spatial Data Services

Acres of Timberland in Maryland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
2.2 million acres

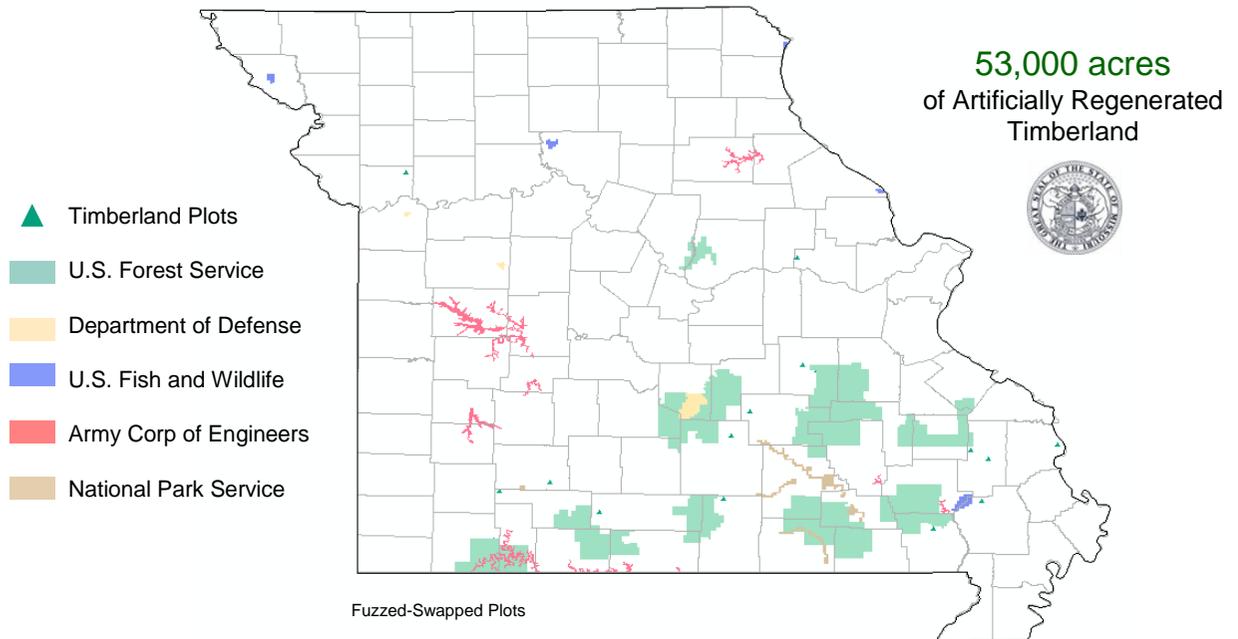
2.2 million ac. (98%) = Qualifying
0.04 million ac. (2%) = Nonqualifying
2.2 million ac. = All Timberland



Source: Maryland Forest Service
U.S. Forest Service, SRS/FIA



FIA Sample Plots on Missouri Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act



Missouri Dept. of Conservation, Forestry



USDA FOREST SERVICE
Northern Research Station
Forest Inventory and Analysis
Sources: USDA Forest Service, 2009

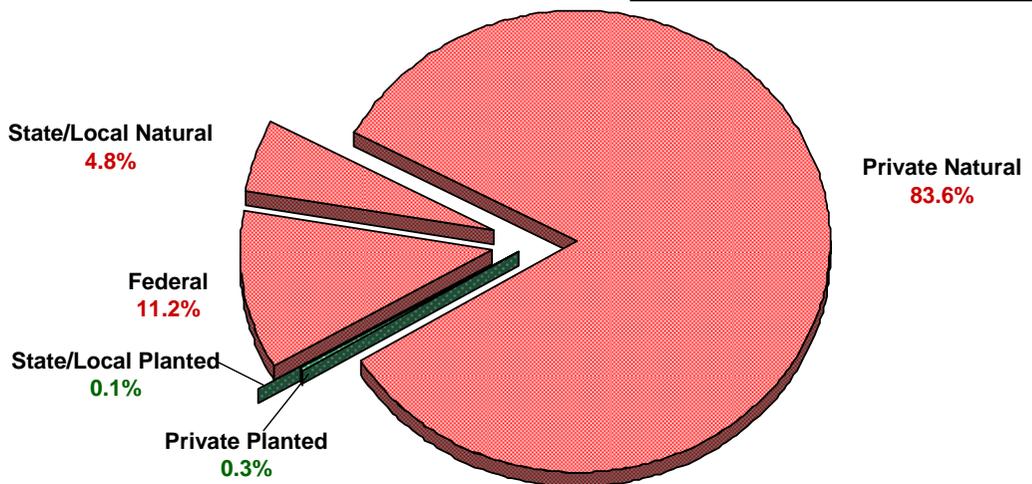


Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>
Produced April 9, 2009, Author: SRS/Spatial Data Services

Acres of Timberland in Missouri Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
0.05 million acres

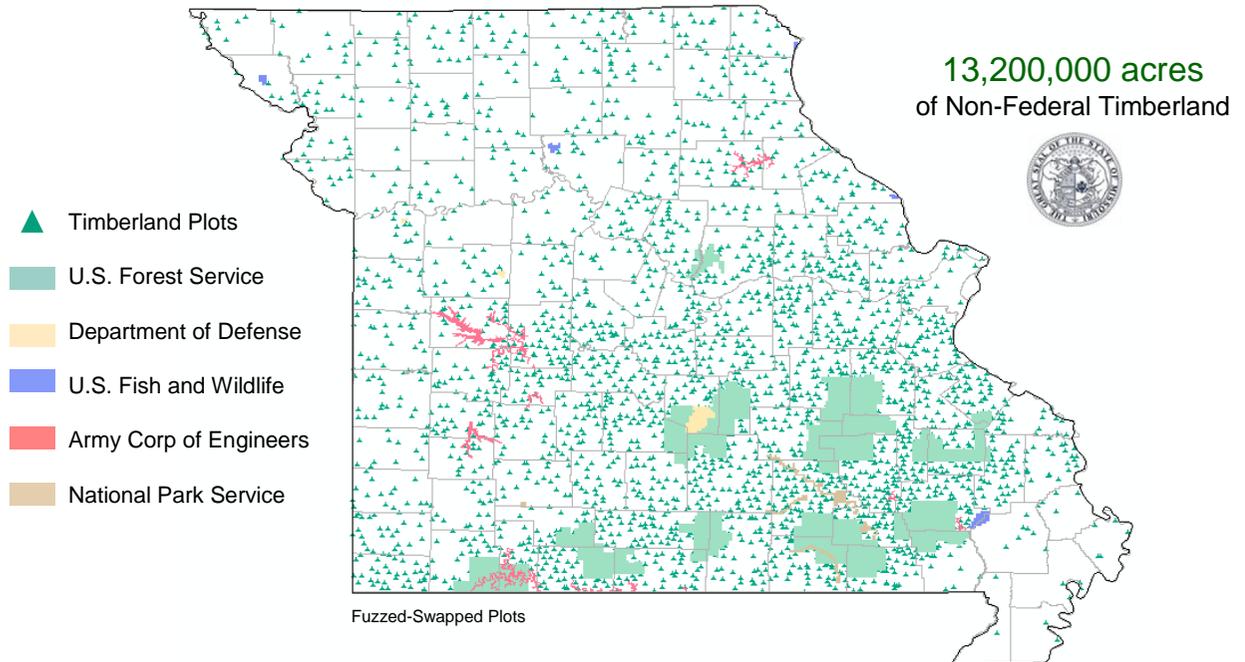
0.05 million ac. (<1%) = Qualifying
13.2 million ac. (89%) = Nonqualifying
1.7 million ac. (11%) = Federal Timberland
14.9 million ac. = All Timberland



Source: Missouri Dept. of Conservation, Forestry
U.S. Forest Service, SRS/FIA



FIA Sample Plots on Missouri Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill



Missouri Dept. of Conservation, Forestry



USDA FOREST SERVICE
Northern Research Station
Forest Inventory and Analysis



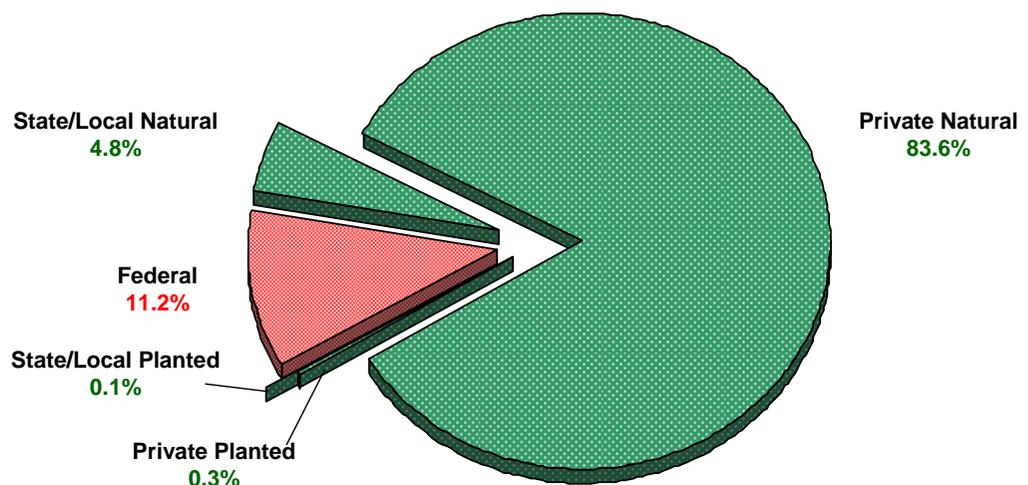
Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadp/>

Produced April 9, 2009, Author: SRS/Spatial Data Services

Acres of Timberland in Missouri Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
13.2 million acres

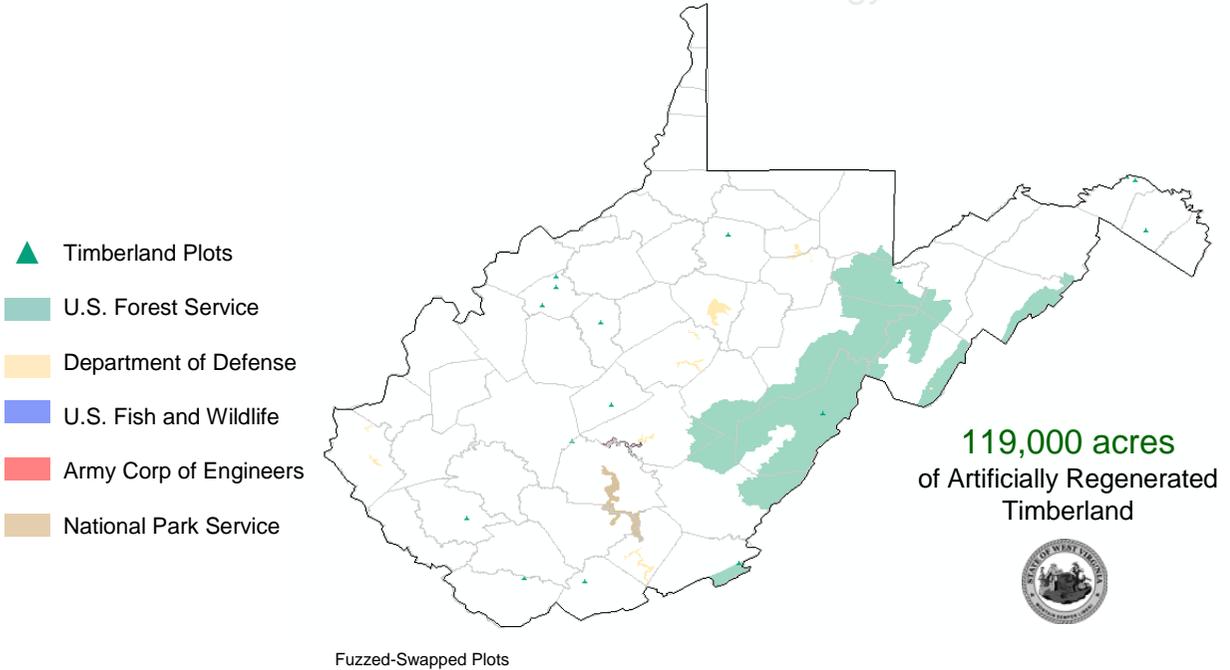
13.2 million ac. (89%) = Qualifying
1.7 million ac. (11%) = Nonqualifying
14.9 million ac. = All Timberland



Source: Missouri Dept. of Conservation, Forestry
U.S. Forest Service, SRS/FIA



FIA Sample Plots on West Virginia Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act



West Virginia Division of Forestry



USDA FOREST SERVICE
Northern Research Station
Forest Inventory and Analysis
Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiad/>

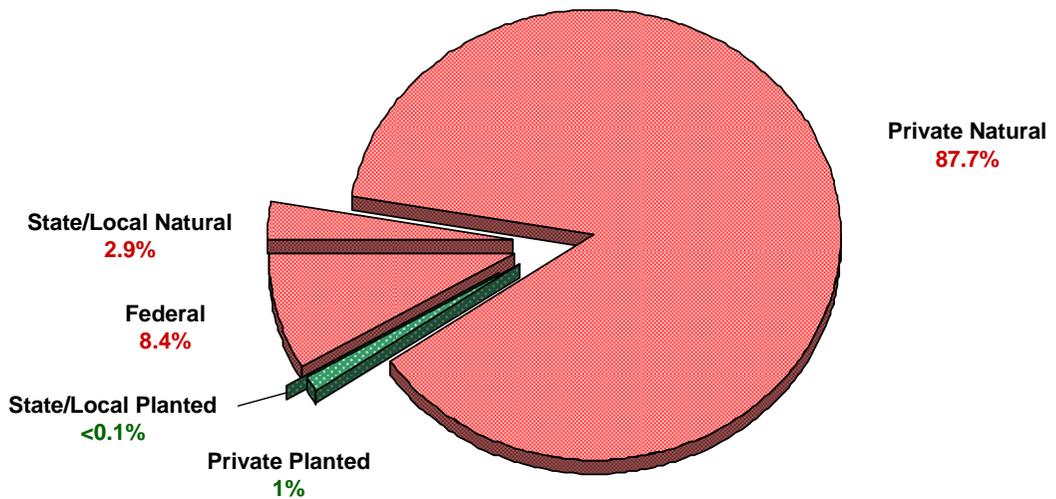


Produced April 29, 2009, Author: SRS/Spatial Data Services

Acres of Timberland in West Virginia Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
0.1 million acres

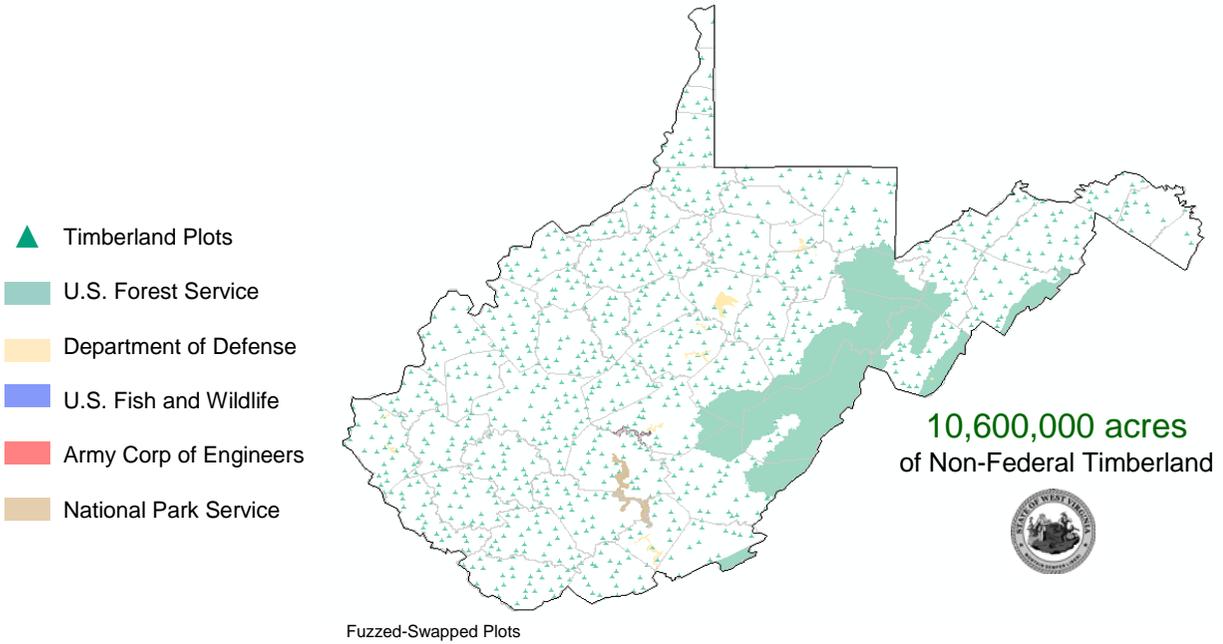
0.1 million ac. (1%) = Qualifying
10.5 million ac. (91%) = Nonqualifying
1.0 million ac. (8%) = Federal Timberland
11.6 million ac. = All Timberland



Source: West Virginia Division of Forestry
U.S. Forest Service, SRS/FIA



FIA Sample Plots on West Virginia Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill



West Virginia Division of Forestry



USDA FOREST SERVICE
Northern Research Station
Forest Inventory and Analysis
Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadp/>

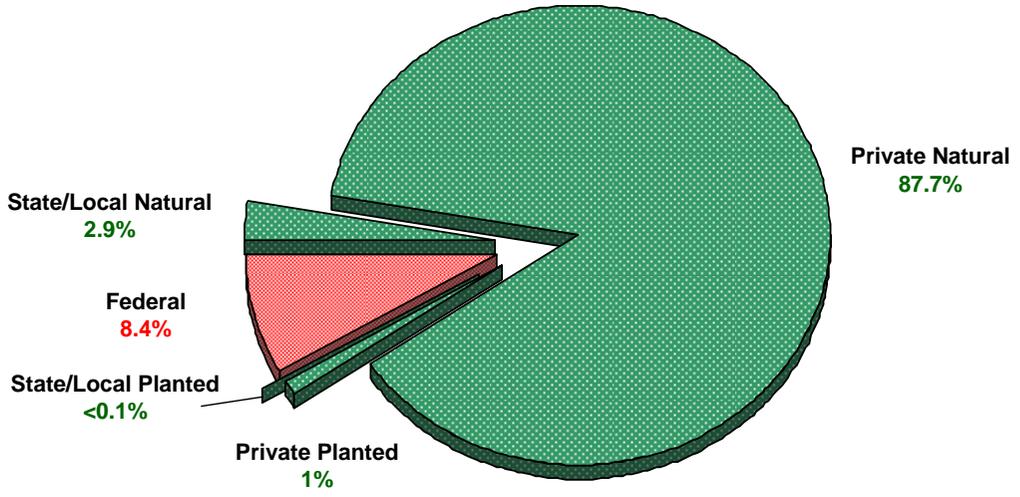


Produced April 29, 2009, Author: SRS/Spatial Data Services

Acres of Timberland in West Virginia Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Non-Federal Timberland
10.6 million acres

10.6 million ac. (92%) = Qualifying
1.0 million ac. (8%) = Nonqualifying
 11.6 million ac. = All Timberland



Source: West Virginia Division of Forestry
U.S. Forest Service, SRS/FIA



FIA Sample Plots on Puerto Rico and the U.S. Virgin Islands Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act



Fuzzed-Swapped Plots

<1000
of Artificially Regenerated
Timberland




- ▲ Timberland Plots
- Bosque Nacional del Caribe
- Refugio de Vida Silvestre
- Reserva Natural
- Wildlife Refuge
- DOD
- Caribbean Bureau of Foreign Broa

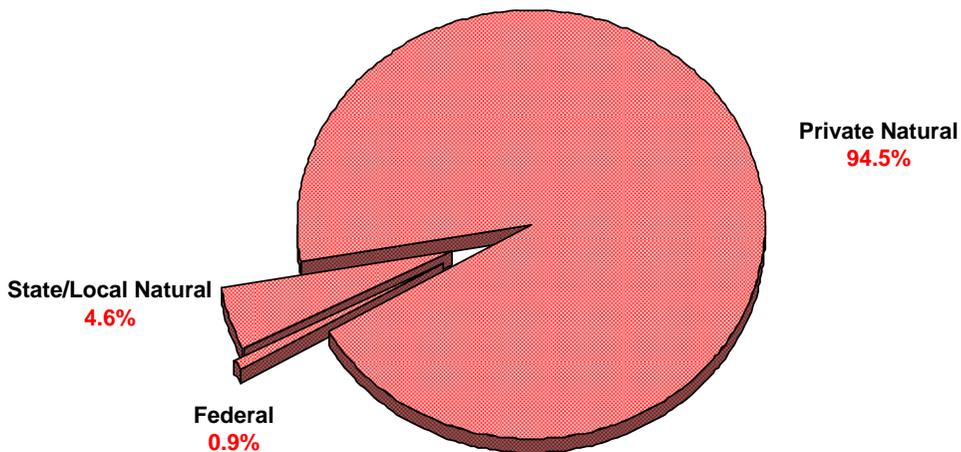
 **USDA FOREST SERVICE**
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis
Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>
Produced June 15, 2009, Author: Spatial Data Services



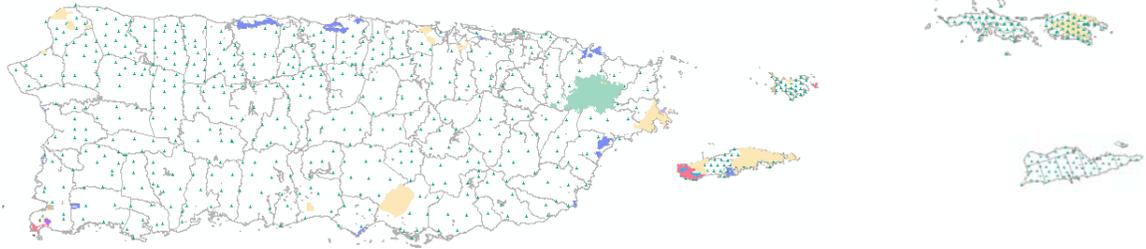
Acres of Timberland in Puerto Rico and U.S. Virgin Islands Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Artificially Regenerated Timberland
<1000 acres

0.0 million ac. (0%) = Qualifying
1.1 million ac. (99%) = Nonqualifying
0.01 million ac. (1%) = Federal Timberland
1.1 million ac. = All Timberland



FIA Sample Plots on Puerto Rico and the U.S. Virgin Islands Timberland Unconditionally Qualifying as “Renewable Biomass” under 2008 Farm Bill



Fuzzed-Swapped Plots

- ▲ Timberland Plots
- Bosque Nacional del Caribe
- Refugio de Vida Silvestre
- Reserva Natural
- Wildlife Refuge
- DOD
- Caribbean Bureau of Foreign Broa



1.1 million acres
of Non-Federal
Timberland



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis
Sources: USDA Forest Service, 2009



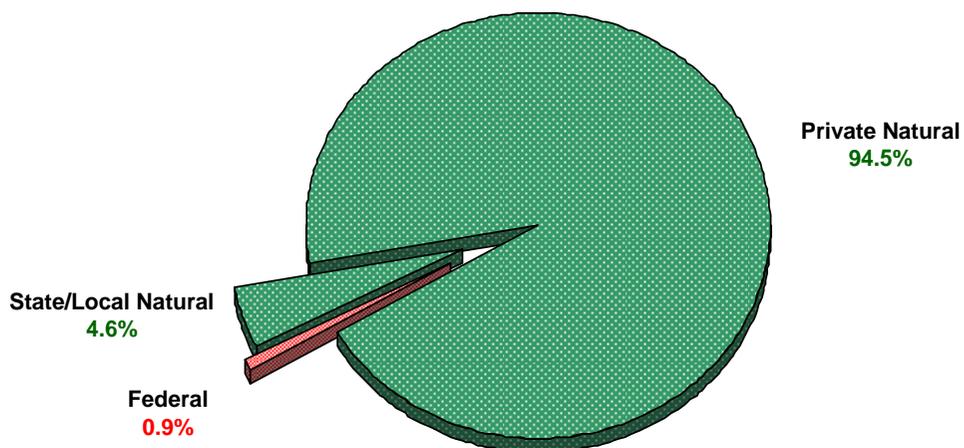
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>

Produced March 9, 2009, Author: Spatial Data Services

Acres of Timberland in Puerto Rico and U.S. Virgin Islands Unconditionally Qualifying as “Renewable Biomass” under 2008 Farm Bill

Non-Federal Timberland
1.1 million acres

1.1 million ac. (99%) = Qualifying
0.01 million ac. (1%) = Nonqualifying
1.1 million ac. = All Timberland



Forest Inventory and Analysis



USDA FOREST SERVICE
SOUTHERN RESEARCH STATION
Forest Inventory and Analysis
Sources: USDA Forest Service, 2009

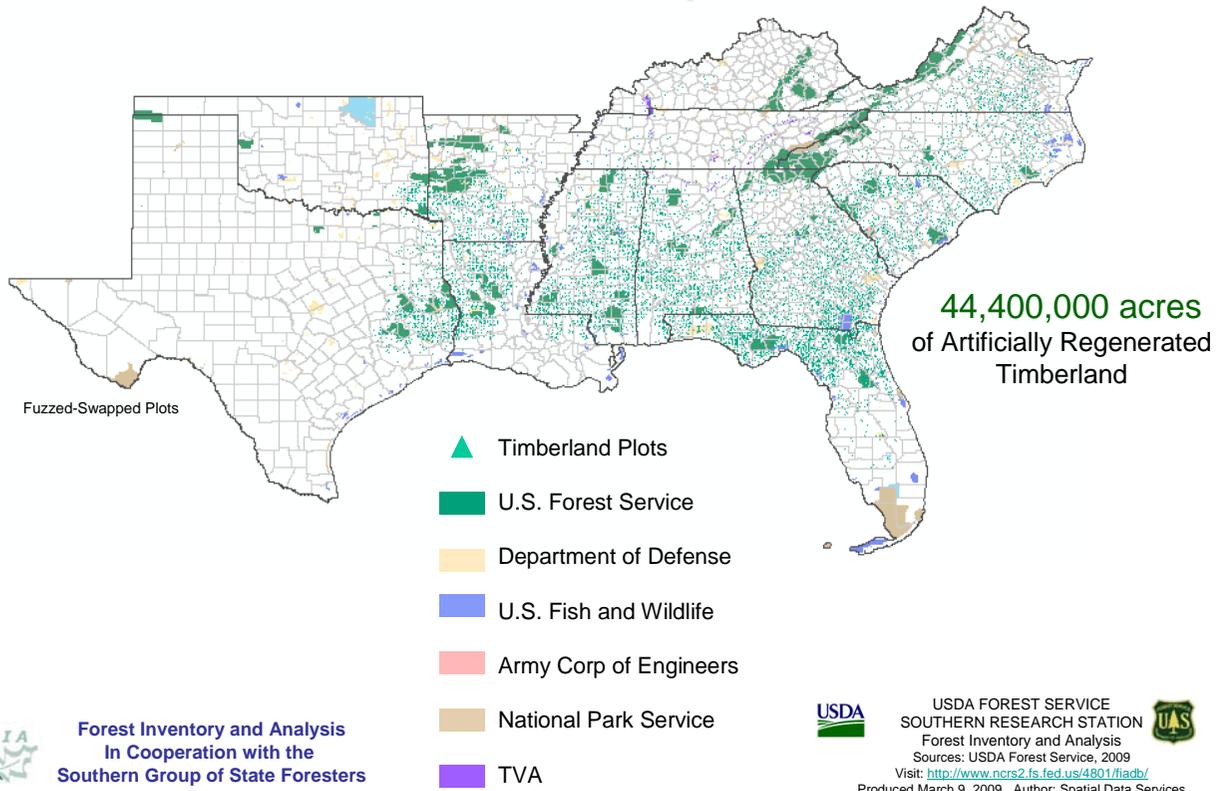


Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>

Produced March 9, 2009, Author: Spatial Data Services

FIA Sample Plots on Southern States Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Includes Puerto Rico and U.S. Virgin Islands



FIA Forest Inventory and Analysis In Cooperation with the Southern Group of State Foresters

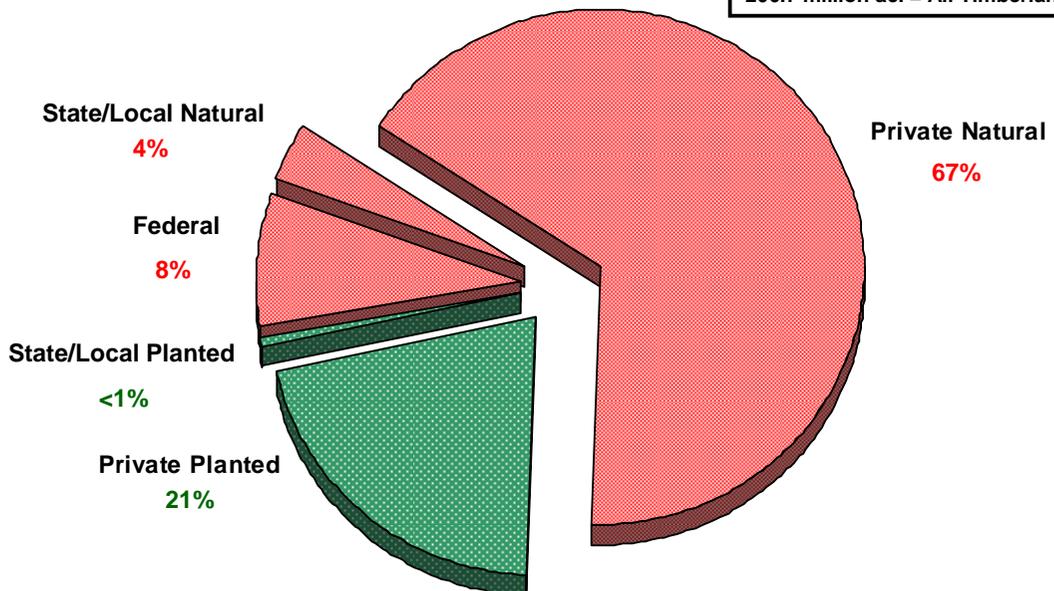
USDA FOREST SERVICE SOUTHERN RESEARCH STATION Forest Inventory and Analysis Sources: USDA Forest Service, 2009 Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/> Produced March 9, 2009, Author: Spatial Data Services

Acres of Regenerated Timberland in the Southern States Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Includes Puerto Rico and U.S. Virgin Islands

Artificially Regenerated Timberland
44.4 million acres

44.4 million ac. (22%) = Qualifying
145.0 million ac. (70%) = Nonqualifying
17.3 million ac. (8%) = Federal Timberland
206.7 million ac. = All Timberland

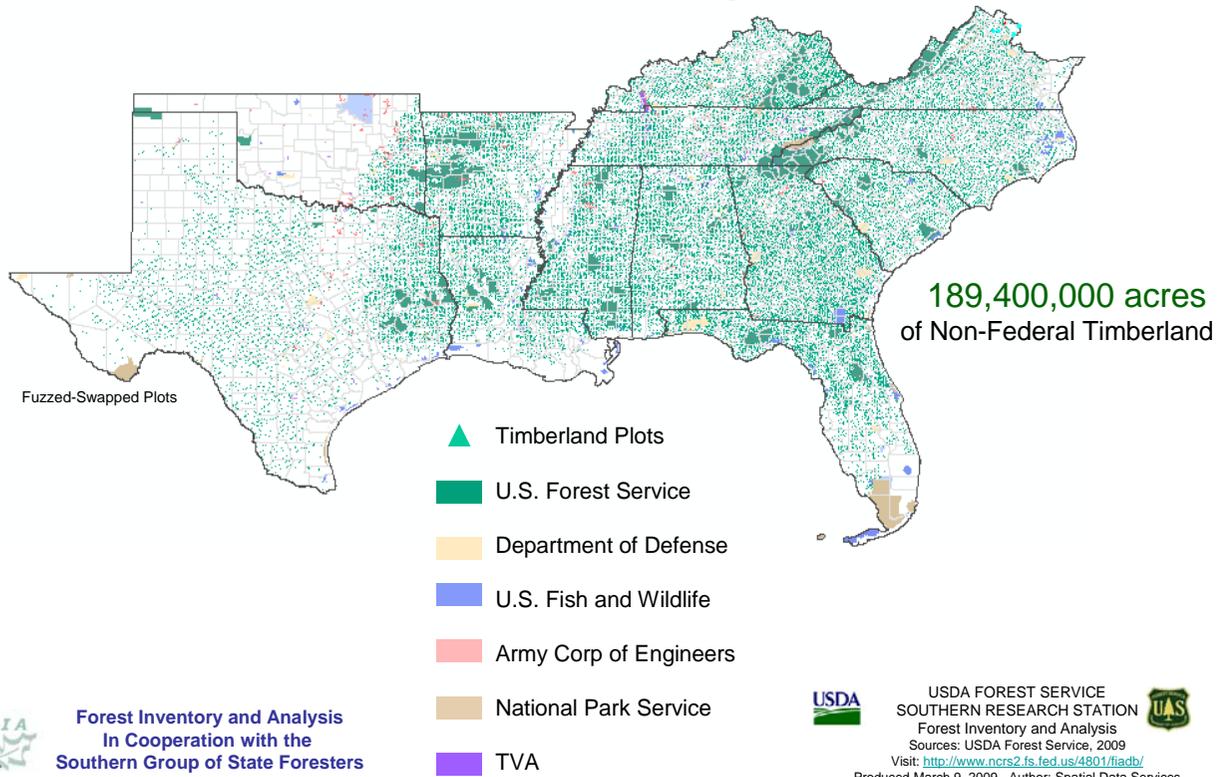


FIA Forest Inventory and Analysis In Cooperation with the Southern Group of State Foresters

USDA FOREST SERVICE SOUTHERN RESEARCH STATION Forest Inventory and Analysis Sources: USDA Forest Service, 2009 Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/> Produced March 9, 2009, Author: Spatial Data Services

FIA Sample Plots on Southern States Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Includes Puerto Rico and U.S. Virgin Islands

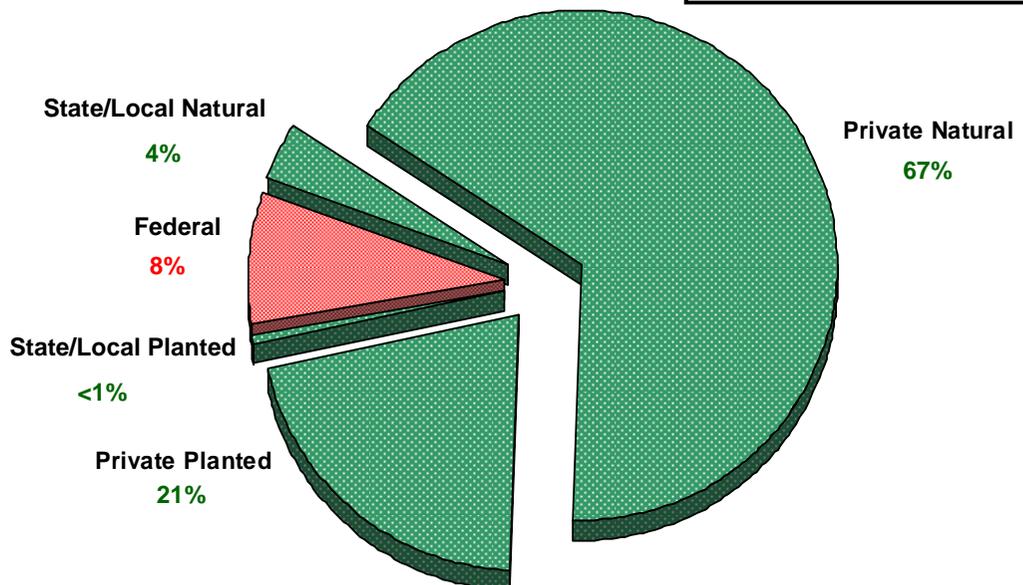


Acres of Non-Federal Timberland in the 13 Southern States Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

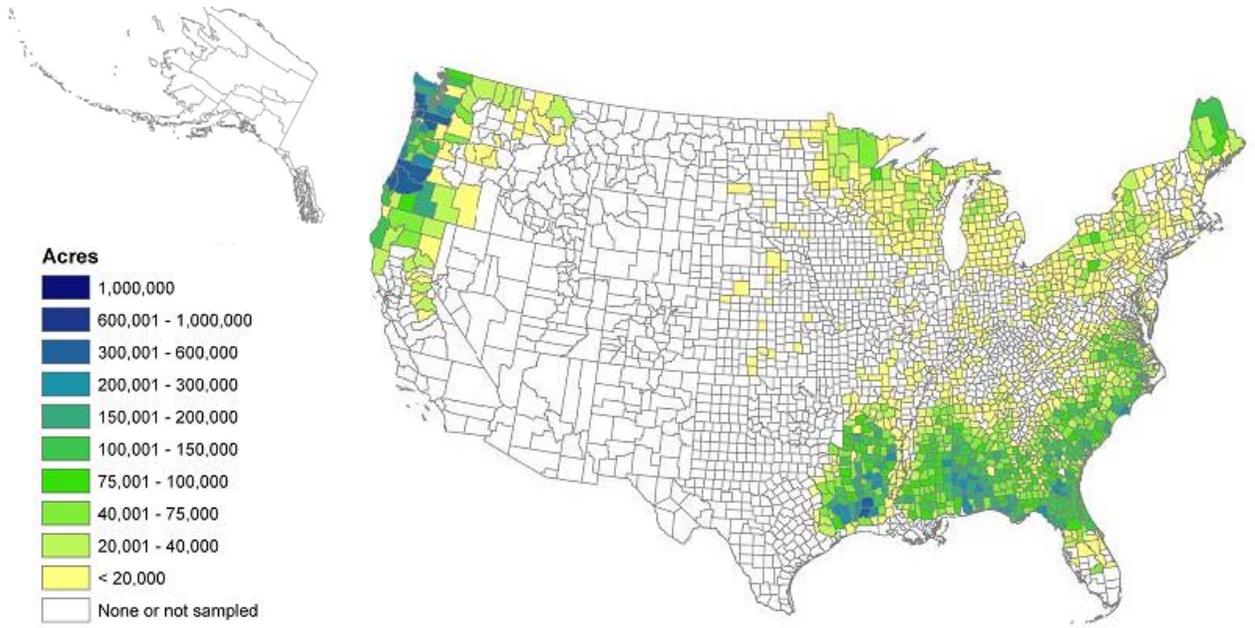
Includes Puerto Rico and the U.S. Virgin Islands

Non-Federal Timberland
189.4 million acres

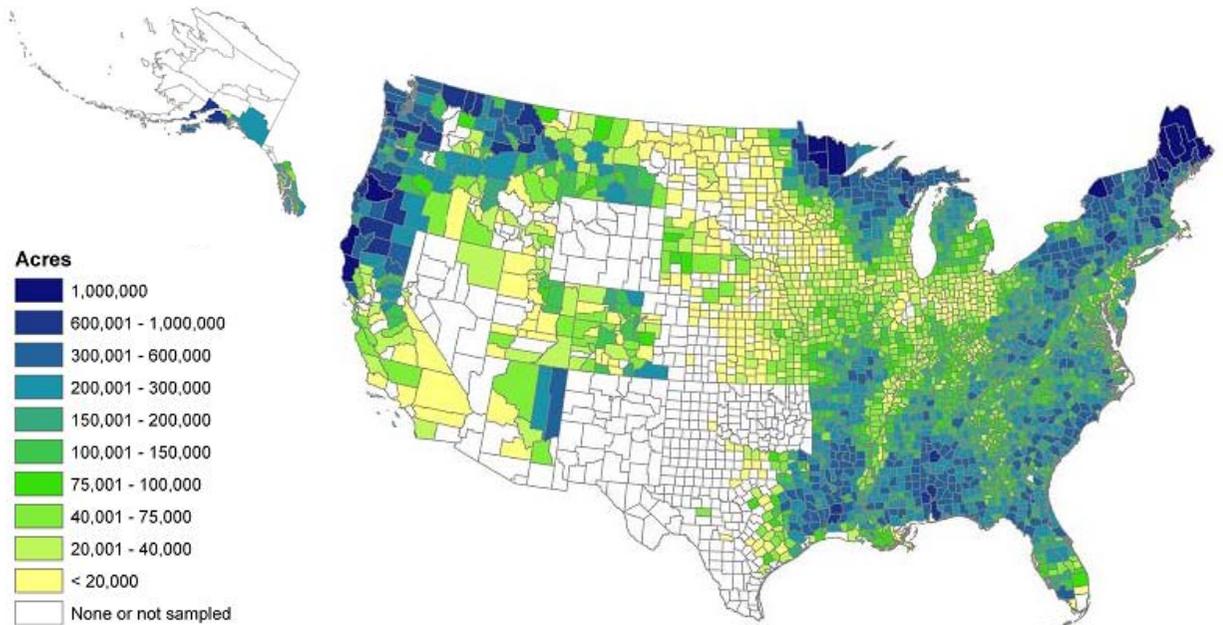
189.4 million ac. (92%) = Qualifying
17.3 million ac. (8%) = Nonqualifying
206.7 million ac. = All Timberland



Area of Timberland Qualifying Under the 2007 Energy Act



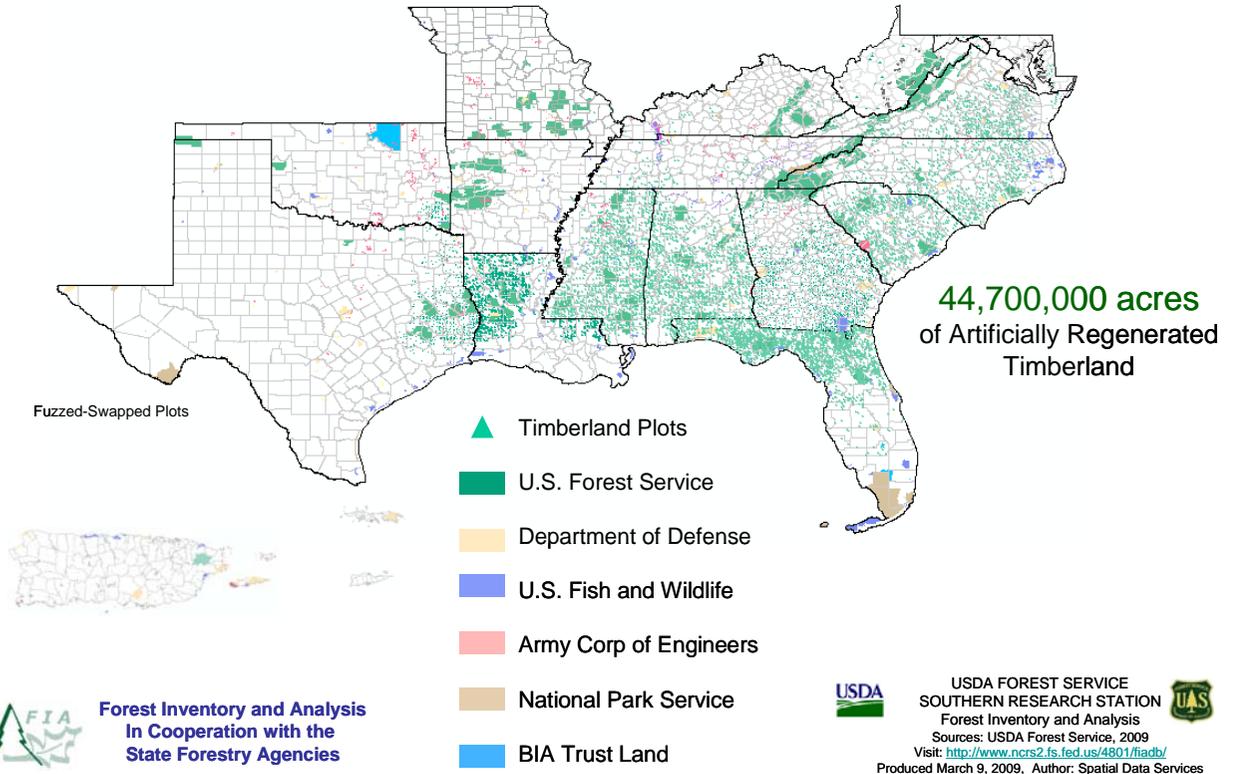
Area of Timberland Qualifying Under the 2008 Farm Bill



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FIA Sample Plots on Southern States Timberland Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Including Maryland, Missouri, and West Virginia, Puerto Rico and U.S. Virgin Islands

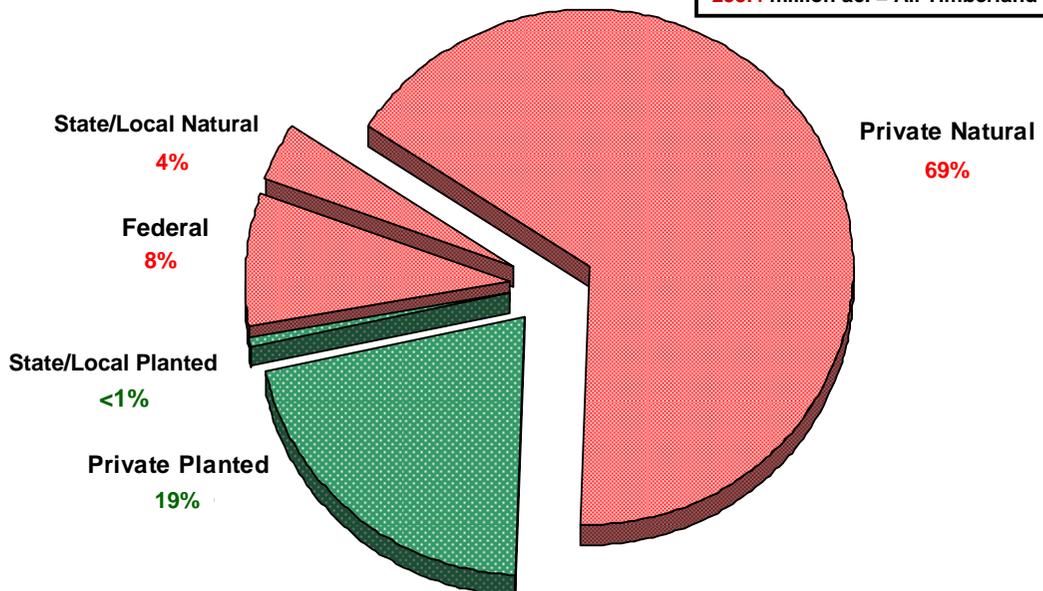


Acres of Regenerated Timberland in the Southern States Unconditionally Qualifying as "Renewable Biomass" under 2007 Energy Act

Includes Maryland, Missouri, West Virginia, Puerto Rico and U.S. Virgin Islands

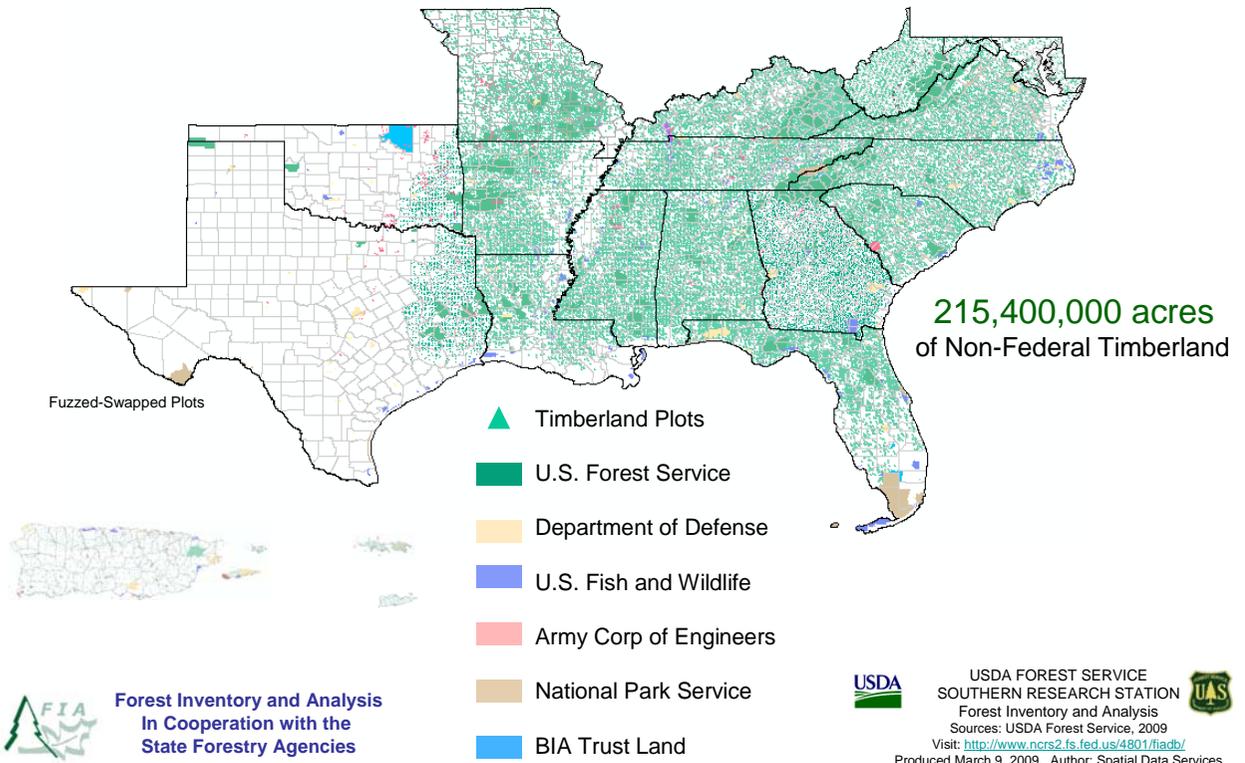
Artificially Regenerated Timberland
44.7 million acres

44.7 million ac. (19%) = Qualifying
170.7 million ac. (73%) = Nonqualifying
20.0 million ac. (08%) = Federal Timberland
235.4 million ac. = All Timberland



FIA Sample Plots on Southern States Timberland Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Includes Maryland, Missouri, West Virginia, Puerto Rico and U.S. Virgin Islands

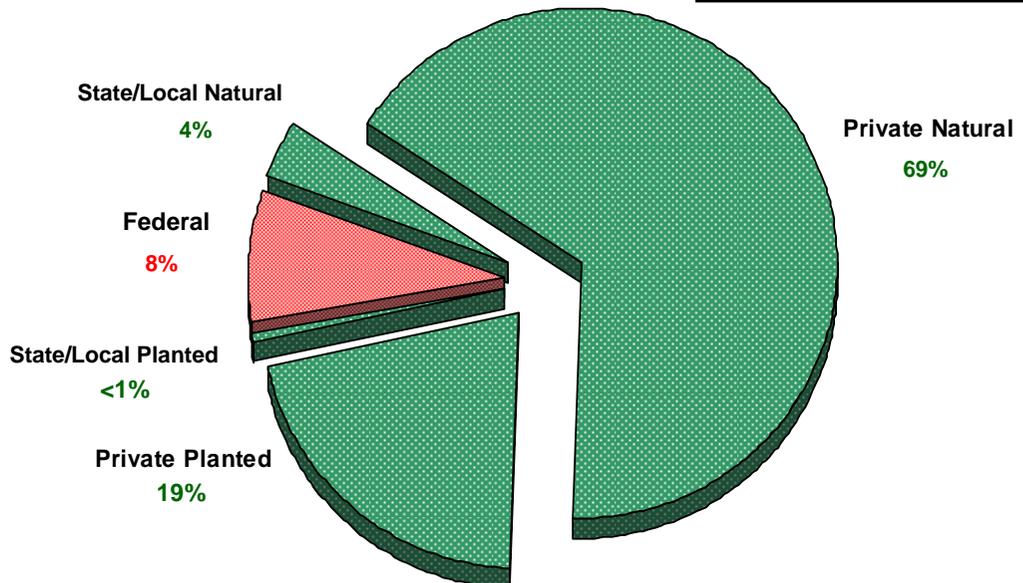


Acres of Regenerated Timberland in the Southern States Unconditionally Qualifying as "Renewable Biomass" under 2008 Farm Bill

Includes Maryland, Missouri, West Virginia, Puerto Rico and U.S. Virgin Islands

Non-Federal Timberland
215.4 million acres

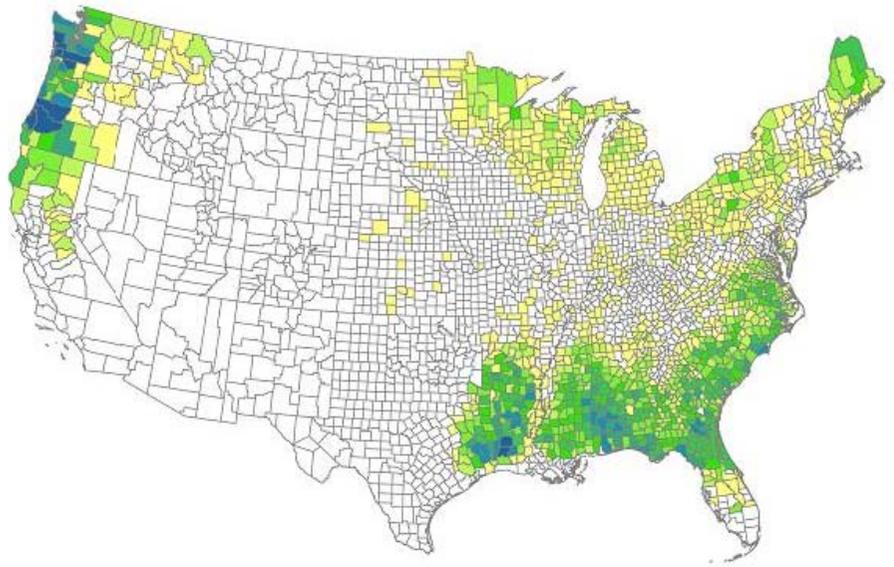
215.4 million ac. (92%) = Qualifying
20.0 million ac. (8%) = Nonqualifying
235.4 million ac. = All Timberland



Area of Timberland Qualifying Under the 2007 Energy Act



Acres



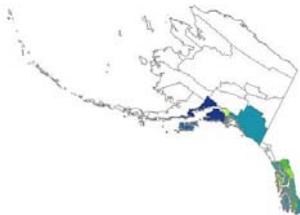
Forest Inventory and Analysis



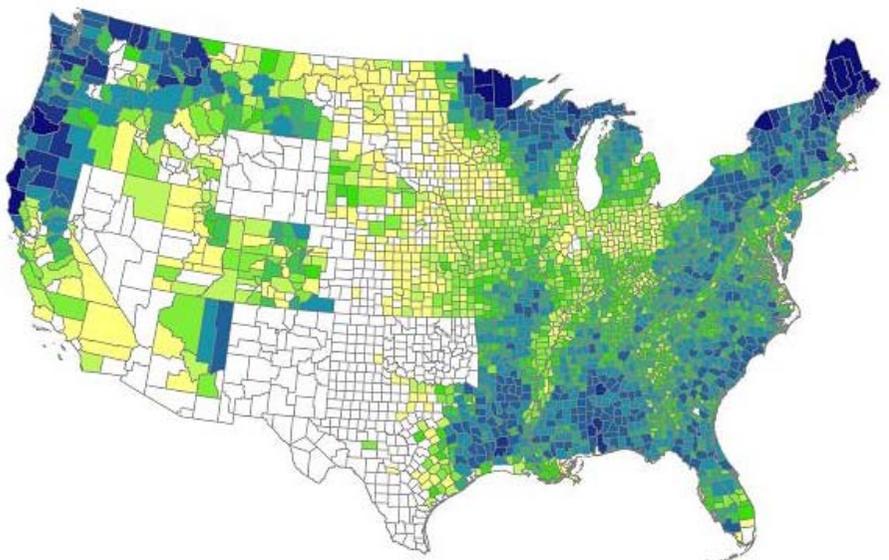
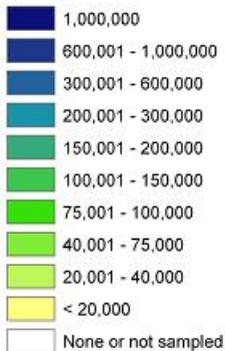
USDA FOREST SERVICE
Northern Research Station
Forest Inventory and Analysis
Sources: USDA Forest Service, 2009
Visit: <http://www.ncrs2.fs.fed.us/4801/fiadb/>
Produced April 9, 2009, Author: Barry Wilson



Area of Timberland Qualifying Under the 2008 Farm Bill



Acres



Forest Inventory and Analysis



USDA FOREST SERVICE
Northern Research Station
Forest Inventory and Analysis
Sources: USDA Forest Service, 2009
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