FHM 1996 Download Files:

Files are arranged by Indicator, Year, and State. Filename protocols are as follows:

ST******YYYY*.csv**

Where

- ***ST*** is the State Acronym (for ex. AL=Alabama),
- ********* is the data type (for ex. TREE = tree measurement data),
- ***YYYY*** is the year the data were collected,
- File extension .**csv** is for comma-separated values, a comma-delimited format that may be used in most applications, including MSExcel.

Download Files Descriptions:

AREA_PERCENT_1996.CSV

Name	Type	Comments
LAST_UPDATE	DATE	Date of last data view update
STATE	NUMBER(2)	State FIPS Code.
STATE_DESCR	VARCHAR2(80)	State FIPS Code description.
STATE_ABBREV	CHAR(2)	Two letter postal state code abbreviation.
COUNTY	NUMBER(3)	County FIPS Code. See the FHM_State_County_codes.xls download file for an explanation of the codes.
PROJECT	NUMBER(4)	Code for the project to which the plot is associated. (e.g., detection monitoring, SAMAB demo, etc).
PROJECT_DESCR	VARCHAR2(80)	Project code description.
HEXAGON_NBR	NUMBER(7)	HEX_NUM EMAP 7 digit hexagon identifier (Not identified in public data).
PLOT_NBR	NUMBER(3)	Plot number identifier within a hexagon.
POINT_NBR	NUMBER(1)	POINT Subplot number (1 to 4) where data were collected.
AREA_PERCENT	NUMBER	Area of subplot or microplot that is in the given condition class in percent.
CONDITION_CLASS_NBR	NUMBER(1)	Arbitrary number to identify land use and forest type on plot, subplot, or microplot.
PLOT_TYPE	NUMBER(1)	Code to identify plot type (subplot or microplot)
PLOT_TYPE_DESCR	VARCHAR2(80)	Plot type code description
P3ID	NUMBER	Unique public plot identifier

BOUNDARY_1996.CSV

Name	Type	Comments
LAST_UPDATE	DATE	Date of last data view update
STATE	NUMBER(2)	State FIPS Code.
STATE_DESCR	VARCHAR2(80)	State FIPS Code description.
STATE_ABBREV	CHAR(2)	Two letter postal state code abbreviation.
COUNTY	NUMBER(3)	County FIPS Code. See the FHM_State_County_codes.xls download file for an explanation of the codes.
PROJECT	NUMBER(4)	Code for the project to which the plot is associated. (e.g., detection monitoring, SAMAB demo, etc).
PROJECT_DESCR	VARCHAR2(80)	Project code description.

HEXAGON_NBR	NUMBER(7)	HEX_NUM EMAP 7 digit hexagon identifier.
PLOT_NBR	NUMBER(3)	HEX_NUM EMAP 7 digit hexagon identifier (Not identified in public data).
POINT_NBR	NUMBER(1)	Plot number identifier within a hexagon.
CONDITION_CLASS_NBR	NUMBER(1)	Arbitrary number to identify land use and forest type on plot, subplot, or microplot.
PLOT_TYPE	NUMBER(1)	Code to identify plot type (subplot or microplot)
PLOT_TYPE_DESCR	VARCHAR2(80)	Plot type code description
OFFSET_POINT	NUMBER(1)	Offset point number for measurement if subplot/ microplot center cannot be occupied.
CORNER_AZIMUTH	NUMBER(3)	Azimuth from the subplot or microplot center to boundary corner.
CORNER_DISTANCE	NUMBER	Distance from the subplot or microplot center to boundary corner.
LEFT_AZIMUTH	NUMBER(3)	Azimuth from the subplot or microplot center to left boundary.
LEFT_DISTANCE	NUMBER	Azimuth from the subplot or microplot center to left boundary.
RIGHT_AZIMUTH	NUMBER(3)	Azimuth from the subplot or microplot center to right boundary.
RIGHT_DISTANCE	NUMBER	Distance from the subplot or microplot center to right boundary.
BOUNDARY_CHANGE	NUMBER(1)	Change in the boundary (remeasured plots only). 0 The boundary has been copied from the plot map. 1 The boundary is different from the plot map.
P3ID	NUMBER	Unique public plot identifier

PLOT_1996.CSV

Name	Type	Comments
LAST_UPDATE	DATE	Date of last data view update
STATE	NUMBER(2)	State FIP Code.
STATE_DESCR	VARCHAR2(80)	State FIPS Code description.
STATE_ABBREV	CHAR(2)	Two letter postal state code abbreviation.
COUNTY	NUMBER(3)	County FIPS Code. See the FHM_State_County_codes.xls download file for an explanation of the codes.
FHM_REGION	NUMBER(2)	FHM Region code.
FHM_REGION_DESCR	VARCHAR2(80)	FHM Region code description
PROJECT	NUMBER(4)	Code for the project to which the plot is associated. (e.g., detection monitoring, SAMAB demo, etc).
PROJECT_DESCR	VARCHAR2(80)	Project code description.
MEASUREMENT_TYPE	NUMBER(1)	Code to indicate: 1 Plot establishment, initial mensuration visit. 2 Annual crown measurement. 3 Mensuration re-measurement.
PANEL	NUMBER	Panel number. The total number of plots in a state are divided into 4 panels (0, 1, 2, 3). Used for interpenetrating design whereby one panel is measured every four years.
OVERLAP	NUMBER	Overlap number. Each panel is divided into 3 overlap numbers. Panel Overlap numbers 0 1, 2, 3 1 4, 5, 6 2 7, 8, 9 3 10, 11, 12 Used for interpenetrating design whereby 1/3 of plots of previous panel are measured in current year
HIERARCHIAL_ID	NUMBER	An addressing scheme based on the hierarchical structure of the EMAP grid. (Not identified in public data).
GRID_INTENSIFICATION	NUMBER	Degree of intensification of hexagon grid 0 No intensification 3 Triple intensification

ECOREGION_CODE	VARCHAR2(10)	
HEXAGON_NBR	NUMBER(7)	EMAP 7-digit hexagon number. (Not identified in public data).
PLOT_NBR	NUMBER(3)	Plot number identifier within a hexagon.
PLOT_STATUS	NUMBER(1)	Current status code of a plot for forest / non-forest, etc.
PLOT_STATUS_DESCR	VARCHAR2(80)	Current plot_status code description.
PROJECT_TYPE	NUMBER(1)	Code that describes project. 1 Detection Monitoring 2 Demonstration Project
QA_STATUS	NUMBER(1)	QA Status for the plot.
QA_STATUS_DESCR	VARCHAR2(80)	QA Status for the plot from definition table.
ELEVATION_CLASS	NUMBER(3)	Elevation class code; code times 100 = elevation (feet). 0 sealevel to 99 ft 1 100 to 199 ft 2 200 to 299 ft 3 300 to 399 ft 4 400 to 499 ft 5 500 to 599 ft . . . 128 12800 to 12899 ft 129 12900 to 12999 ft 130 13000 to 13099 ft 999 unknown
INCLUSION_PROBABILITY	NUMBER(8)	The multiplier used to include this plot for expansion to the acre or hectare.
LAST_PLOT_MENS_YEAR	NUMBER(4)	Year of last visit to plot where plot was in forest condition and mensuration data were collected (MT1 or MT3 visit). NULL indicates plot has always been non-forest.
LAST_PLOT_TALLY_YEAR	NUMBER(4)	Year of last visit to plot where plot was in forest condition NULL indicates plot has always been non-forest.
LAST_PLOT_VISIT_YEAR	NUMBER(4)	Year of last visit to plot, regardless if plot was forest or nonforest.
PREVIOUS_VISIT_YEAR	NUMBER(4)	Year of previous visit to plot
PLOT_COND_CLASS_YEAR	NUMBER(4)	Present year condition class data were collected on plot.
COND_CLASS_YEAR	NUMBER(4)	Most recent year when condition class data were collected on plot.
PLOT_ENTRANCE_YEAR	NUMBER(4)	Year plot entered FHM system (first year plot visited).
PLOT_EXIT_YEAR	NUMBER(4)	Year plot left FHM system.
PLOT_EXIT_REASON	NUMBER(4)	Code for reason plot exited FHM system. 1 Dangerous plot 2 Permanent land use change 3 No longer needed for scientific purposes 4 Objective for plot discontinued 5 Plot should have never been tallied 6 Access denied. Plot replaced with next highest plot number 7 Lost Plot. Plot replaced with next highest plot number
MONTH	VARCHAR2(9)	Month of plot visit.
DAY	NUMBER	Day of plot visit.
YEAR	NUMBER	Year of plot visit.
CREW_TALLY1	NUMBER(7)	Code to identify crew person.
CREW_TALLY2	NUMBER(7)	Code to identify crew person.
CREW_TALLY3	NUMBER(7)	Code to identify crew person.
CREW_TALLY4	NUMBER(7)	Code to identify crew person.
CREW_TALLY5	NUMBER(7)	Code to identify crew person.
CREW_TYPE_1994	NUMBER(1)	Code for crew type of person.

CREW_TYPE_1994_DESCR	VARCHAR2(80)	Crew type code description
DISTURB_YEAR1	number(4)	Year interim disturbance 1 was measured
PAST_DISTURB1_1996	number(2)	Code for interim disturbance 1 0 none 1 harvest 2 commercial thinning 3 selective cutting and highgrading 4 other cutting 5 site preparation 6 artificial regeneration on existing forest 7 artificial regeneration on nonforest 8 prescribed burning 9 other silvicultural 10 natural reversion on nonforest 11 disease 12 insects 13 weather 14 fire 15 grazing 16 other 17 salvage/sanitation cut
DISTURB_YEAR2	number(4)	Year interim disturbance 1 was measured
PAST_DISTURB2_1996	number(2)	Code for interim disturbance 2. See PAST_DISTURB1_1996 for an explanation of the codes.
DISTURB_YEAR3	number(4)	Year interim disturbance 1 was measured
PAST_DISTURB3_1996	number(2)	Code for interim disturbance 3. See PAST_DISTURB1_1996 for an explanation of the codes.
CNTR_LAND_USE_1	NUMBER(2)	Center Land Use class 1 / non-forest option.
CNTR_LAND_USE_2	NUMBER(2)	Center Land Use class 2 / non-forest option.
CNTR_LAND_USE_3	NUMBER(2)	Center Land Use class 3 / non-forest option.
CNTR_LAND_USE_4	NUMBER(2)	Center Land Use class 4 / non-forest option.
ELEVATION	NUMBER	Elevation of the plot center (feet).
P3ID	NUMBER	Unique public plot identifier

PLOT_COND_CLASS_1996.CSV

Name	Type	Comments
LAST_UPDATE	DATE	Date of last data view update
STATE	NUMBER(2)	State FIPS Code.
STATE_DESCR	VARCHAR2(80)	State FIPS Code description.
STATE_ABBREV	CHAR(2)	Two letter postal state code abbreviation.
COUNTY	NUMBER(3)	County FIPS Code. See the FHM_State_County_codes.xls download file for an explanation of the codes.
PROJECT	NUMBER(4)	Code for the project to which the plot is associated. (e.g., detection monitoring, SAMAB demo, etc.)
PROJECT_DESCR	VARCHAR2(80)	Project code description.
HEXAGON_NBR	NUMBER(7)	EMAP 7 digit hexagon identifier. (Not identified in public data).
PLOT_NBR	NUMBER(3)	Plot number identifier within a hexagon.
CONDITION_CLASS_NBR	NUMBER(1)	An arbitrary number used to identify and map different land uses and forest conditions occurring on a plot.
LAND_USE_CLASS	NUMBER(2)	Land use code.
LAND_USE_CLASS_DESCR	VARCHAR2(80)	Land use code description.
FOREST_TYPE	NUMBER(4)	Code for forest type on this condition class.
FOREST_TYPE_DESCR	VARCHAR2(80)	Forest type code description.
PLOT_AREA_PCT	NUMBER	Area of total plot that is in the given condition class in percent.
STAND_AGE	NUMBER(3)	Estimated stand age for the forested condition class defined on the plot.

STAND_ORIGIN	NUMBER(1)	Code describing how the tree stand was established. 1 Natural stand 2 Softwoods planted or seeded 3 Hardwoods planted or seeded 4 Recent harvest, no trees present
STAND_SIZE_CLASS	NUMBER(1)	Stand size based on all live trees on plot. 1 Sawtimber; 9.0"+ Softwoods + Woodland species; 11.0"+ Hardwoods 2 Poletimber; 5.0-8.9" Softwoods + Woodland species; 5.0-10.9" Hardwoods 3 Sapling/Seedling; 1.0-4.9" All 4 Nonstocked
DISTURB_YEAR1	NUMBER(4)	Year disturbance occurred (0 indicates continuous disturbance).
PAST_DISTURB1_1996	NUMBER(2)	Code for past natural or human caused disturbance. 0 none 1 harvest 2 commercial thinning 3 selective cutting and highgrading 4 other cutting 5 site preparation 6 artificial regeneration on existing forest 7 artificial regeneration on nonforest 8 prescribed burning 9 other silvicultural 10 natural reversion on nonforest 11 disease 12 insects 13 weather 14 fire 15 grazing 16 other 17 salvage/sanitation cut
DISTURB_YEAR2	NUMBER(4)	Year disturbance occurred (0 indicates continuous disturbance).
PAST_DISTURB2_1996	NUMBER(2)	Code for past natural or human caused disturbance. See PAST_DISTURB1_1996 for an explanation of the codes.
DISTURB_YEAR3	NUMBER(4)	Year disturbance occurred (0 indicates continuous disturbance).
PAST_DISTURB3_1996	NUMBER(2)	Code for past natural or human caused disturbance. See PAST_DISTURB1_1996 for an explanation of the codes.
CONDITION_CLASS_CHANGE	NUMBER(1)	Change in the condition class. (MT3 only) ADDED IN 1991-1993 WITH NULL VALUE FOR JOINS. 0 The condition class has been copied from the plot map 1 The condition class is different from the plot map
P3ID	NUMBER	Unique public plot identifier

POINT_1996.CSV

Name	Type	Comments
LAST_UPDATE	DATE	Date of last data view update
STATE	NUMBER(2)	State FIPS Code.
STATE_DESCR	VARCHAR2(80)	State FIPS Code description.
STATE_ABBREV	CHAR(2)	Two letter postal state code abbreviation.
COUNTY	NUMBER(3)	County FIPS Code. See the FHM_State_County_codes.xls download file for an explanation of the codes.
PROJECT	NUMBER(4)	Code for the project to which the plot is associated. (e.g., detection monitoring, SAMAB demo, etc.)
PROJECT_DESCR	VARCHAR2(80)	Project code description.
HEXAGON_NBR	NUMBER(7)	EMAP 7-DIGIT hexagon number. (Not identified in public data).
PLOT_NBR	NUMBER(3)	Plot number identifier within a hexagon.

POINT_NBR	NUMBER(1)	Point number (1 to 4) within the plot.
ASPECT	NUMBER(3)	Direction of slope to the nearest degree of the subplot. When pct_slope is less than 5%, aspect is recorded as 000.
MICROPLOT_OFFSET	NUMBER(1)	Microplot offset code to indicate if an offset was used. 0 No offset, distances measured from microplot center. 1 Offset used.
SUBPLOT_OFFSET	NUMBER(1)	Records whether an offset was used on the subplot 0 No offset, distances measured from microplot center. 1 Offset used.
PCT_SLOPE	NUMBER(3)	The angle of slope, expressed as a percent.
SLOPE_CORRECTION	NUMBER(6,2)	Distance correction due to slope to nearest 0.1 foot.
TERRAIN_POSITION	NUMBER(1)	Position of the point in relation to topography. 1 top and upper slopes (convex) 2 midslope (uniform angle) 3 bench (level) 4 lower slope (concave) 5 flatland (not related to slope) 6 bottomland (occasional flooding) 7 forested wetlands (year-round water)
CURRENT_POINT_STATUS	NUMBER(1)	Records the status of forest condition on the point. 0 Entire point non-forest condition 1 at least 1 forest condition on point.
MICROPLOT_CNTR_COND	NUMBER(1)	Condition class at center of microplot.
SUBPLOT_CNTR_COND	NUMBER(1)	Condition class at center of subplot.
SUBPLOT_COND_CLASS1	NUMBER(1)	Arbitrary number to identify land use and forest type on plot, subplot, or microplot. Plot condition class at subplot or microplot center (in BOUNDARY this is defined as contrasting condition class)
SUBPLOT_COND_CLASS2	NUMBER(1)	Arbitrary number to identify land use and forest type on plot, subplot, or microplot. Plot condition class at subplot or microplot center (in BOUNDARY this is defined as contrasting condition class)
SUBPLOT_COND_CLASS3	NUMBER(1)	Arbitrary number to identify land use and forest type on plot, subplot, or microplot. Plot condition class at subplot or microplot center (in BOUNDARY this is defined as contrasting condition class)
SUBPLOT_COND_CLASS4	NUMBER(1)	Arbitrary number to identify land use and forest type on plot, subplot, or microplot. Plot condition class at subplot or microplot center (in BOUNDARY this is defined as contrasting condition class)
P3ID	NUMBER	Unique public plot identifier

SEEDLING_1996.CSV

Name	Type	Comments
LAST_UPDATE	DATE	Date of last data view update
STATE	NUMBER(2)	State FIPS Code.
STATE_DESCR	VARCHAR2(80)	State FIPS Code description.
STATE_ABBREV	CHAR(2)	Two letter postal state code abbreviation.
COUNTY	NUMBER(3)	County FIPS Code. See the FHM_State_County_codes.xls download file for an explanation of the codes.
PROJECT	NUMBER(4)	Code for the project to which the plot is associated. (e.g., detection monitoring, SAMAB demo, etc.)
PROJECT_DESCR	VARCHAR2(80)	Project code description.
HEXAGON_NBR	NUMBER(7)	EMAP 7-DIGIT hexagon number. (Not identified in public data).
PLOT_NBR	NUMBER(3)	Plot number identifier within a hexagon.
POINT_NBR	NUMBER(1)	Point number (1 to 4) within the plot.
FHM_SPECIES	NUMBER(3)	Code for FHM tree species.
SPECIES_COMMON_NAME	VARCHAR2(80)	FHM tree species code description.

CONDITION_CLASS_NBR	NUMBER(1)	An arbitrary number used to identify and map different land uses and forest conditions occurring on a plot.
CROWN_CLASS	NUMBER(1)	Code that categorizes the tree by the location of the crown. 1 open grown 2 dominant 3 codominant 4 intermediate 5 overtopped (suppressed).
CROWN_VIGOR_CLASS	NUMBER(1)	Crown vigor class code. 1 80-100% normal foliage 2 21-79% normal foliage 3 1-20% normal foliage
NBR_SEEDLINGS	NUMBER(2)	The number of seedlings by species within the microplot
LAND_USE_CLASS	NUMBER(2)	Land use code.
LAND_USE_CLASS_DESCR	VARCHAR2(80)	Land use code description
FOREST_TYPE	NUMBER(4)	Code for forest type on this condition class.
FOREST_TYPE_DESCR	VARCHAR2(80)	Forest type code description.
STAND_AGE	NUMBER(3)	Estimated stand age for the forested condition class defined on the plot.
STAND_ORIGIN	NUMBER(1)	Code describing how the tree stand was established. 1 Natural stand 2 Softwoods planted or seeded 3 Hardwoods planted or seeded 4 Recent harvest, no trees present
STAND_SIZE_CLASS	NUMBER(1)	Stand size based on all live trees on plot. 1 Sawtimber; 9.0"+ Softwoods + Woodland species; 11.0"+ Hardwoods 2 Poletimber; 5.0-8.9" Softwoods + Woodland species; 5.0-10.9" Hardwoods 3 Sapling/Seedling; 1.0-4.9" All 4 Nonstocked
P3ID	NUMBER	Unique public plot identifier

SITE_TREE_1996.CSV

Name	Type	Comments
LAST_UPDATE	DATE	Date of last VLU update
STATE	NUMBER(2)	State FIPS Code.
STATE_DESCR	VARCHAR2(80)	State FIPS Code description.
STATE_ABBREV	CHAR(2)	Two letter postal state code abbreviation.
COUNTY	NUMBER(3)	County FIPS Code. See the FHM_State_County_codes.xls download file for an explanation of the codes.
PROJECT	NUMBER(4)	Code for the project to which the plot is associated. (e.g., detection monitoring, SAMAB demo, etc.)
PROJECT_DESCR	VARCHAR2(80)	Project code description.
HEXAGON_NBR	NUMBER(7)	EMAP 7-DIGIT hexagon number. (Not identified in public data).
PLOT_NBR	NUMBER(3)	Plot number identifier within a hexagon.
POINT_NBR	NUMBER(1)	Point number (1 to 4) within the plot.
PLOT_TREE_NBR	NUMBER(4)	Number identifying site tree on the plot.
SITE_TREE_TYPE	NUMBER(1)	tree_type = 1 Site Tree Only.
PK_SITE_TREE	NUMBER	System generated number assigned as primary key for site tree. Its primary use is for the joining of tables.
FHM_SPECIES	NUMBER(3)	Code for FHM tree species.
SPECIES_COMMON_NAME	VARCHAR2(80)	FHM tree species code description.
DBH	NUMBER	Diameter at breast height.

DRC	NUMBER	Diameter at root collar (woodland species only).
CROWN_CLASS	NUMBER(1)	Code that categorizes the tree by the location of the crown. 1 open grown 2 dominant 3 codominant 4 intermediate 5 overtopped (suppressed).
COMPETING_BASAL_AREA	NUMBER	Competing Basal Area
CROWN_DENSITY	NUMBER(2)	Crown density code. Crown density is the amount of crown branches, foliage and reproductive structures that blocks light visibility through the crown, as a percentage of the crown outline. 00 0% 05 1-5% 10 6-10% 15 11-15% 95 91-95% 99 96-100%
CROWN_DIAMETER_90	NUMBER	Crown diameter, in feet, at 90 degrees to the widest point.
CROWN_DIAMETER_WIDE	NUMBER	Crown diameter, in feet, at widest point.
CROWN_DIEBACK	NUMBER(2)	Crown dieback code. Branch mortality in the outer, upper portion of the crown, as a percentage of the crown outline. 01 0% 05 1--5% 10 6-10% 15 11-15% 95 91-95% 99 96-100%
CROWN_RATIO	NUMBER(2)	Crown ratio code. Crown length as a percentage of the tree height. 00 0% 05 1--5% 10 6-10% 15 11-15% 95 91-95% 99 96-100%
NBR_STEMS	NUMBER(3)	Number of stems for woodlands species.
FOLIAGE_TRANSPARENCY	NUMBER(2)	Foliage transparency code. The amount of light penetrating through the foliage of the crown, as a percentage of the crown foliage outline. 00 0% 05 1--5% 10 6-10% 15 11-15% 95 91-95% 99 96-100%

TREE_DAMAGE1_1996	NUMBER(2)	Code for type of tree damage. 1 Canker 2 Conks, fruiting bodies, and other indicators of advanced decay 3 Open wounds 4 Resinosus or gummosis 6 Blister rust (California) 11 Broken bole or roots less than 1 meter (3 feet) from bole 12 Brooms on roots or bole 13 Broken or dead (roots >1 meter (3 feet) from bole) 21 Loss of apical dominance, dead terminal 22 Broken or dead 23 Excessive branching or brooms 24 Damaged foliage or shoots 25 Discoloration of foliage 31 Other (make note)
TREE_DAMAGE_LOC1_1996	NUMBER(2)	Code for location of tree damage. 0 No Damage 1 Roots (expose) and "stump" (12 inches in height from ground level) 2 Roots and lower bole 3 Lower Bole 4 Lower and Upper Bole 5 Upper bole 6 Crownstem 7 Branches (woody stems other than main stem) 8 Buds and shoots (the most recent year's growth) 9 Foliage Damage
TREE_DAMAGE_SEVERITY1_1996	NUMBER(1)	Code for cause of tree damage. 0 1%-9% Class 1 10%-19% Class 2 20%-29% Class 3 30%-39% Class 4 40%-49% Class 5 50%-59% Class 6 60%-69% Class 7 70%-79% Class 8 80%-89% Class 9 90%-99% Class
TREE_DAMAGE2_1996	NUMBER(2)	Code for type of tree damage. See TREE_DAMAGE1_1996 for an explanation of the codes.
TREE_DAMAGE_LOC2_1996	NUMBER(2)	Code for location of tree damage. See TREE_DAMAGE_LOC1_1996 for an explanation of the codes.
TREE_DAMAGE_SEVERITY2_1996	NUMBER(1)	Code for cause of tree damage. See TREE_DAMAGE_SEVERITY1_1996 for an explanation of the codes.
TREE_DAMAGE3_1996	NUMBER(2)	Code for type of tree damage. See TREE_DAMAGE1_1996 for an explanation of the codes.
TREE_DAMAGE_LOC3_1996	NUMBER(2)	Code for location of tree damage. See TREE_DAMAGE_LOC1_1996 for an explanation of the codes.
TREE_DAMAGE_SEVERITY3_1996	NUMBER(1)	Code for cause of tree damage. See TREE_DAMAGE_SEVERITY1_1996 for an explanation of the codes.
CONDITION_CLASS_NBR	NUMBER(1)	An arbitrary number used to identify and map different land uses and forest conditions occurring on a plot.
LAND_USE_CLASS	NUMBER(2)	Land use code. See the LAND_USE_CLASS_DEF1991 table for an explanation of the codes.
LAND_USE_CLASS_DESCR	VARCHAR2(80)	Land use code description.
FOREST_TYPE	NUMBER(4)	Code for forest type on this condition class.
FOREST_TYPE_DESCR	VARCHAR2(80)	Forest type code description.

STAND_AGE	NUMBER(3)	Estimated stand age for the forested condition class defined on the plot.
STAND_ORIGIN	NUMBER(1)	Code describing how the tree stand was established. 1 Natural stand 2 Softwoods planted or seeded 3 Hardwoods planted or seeded 4 Recent harvest, no trees present
STAND_SIZE_CLASS	NUMBER(1)	Stand size based on all live trees on plot. 1 Sawtimber; 9.0"+ Softwoods + Woodland species; 11.0"+ Hardwoods 2 Poletimber; 5.0-8.9" Softwoods + Woodland species; 5.0-10.9" Hardwoods 3 Sapling/Seedling; 1.0-4.9" All 4 Nonstocked
AZIMUTH	NUMBER(3)	Azimuth from subplot center to sitetree.
DISTANCE	NUMBER	Distance from subplot center to pith at base of sitetree.
ENTRANCE_YEAR	NUMBER(4)	Year that tree was first tallied.
EXIT_YEAR	NUMBER(4)	Year that tree was dropped from FHM system.
EXIT_REASON	NUMBER(3)	Code for reason that tree was dropped from FHM system 1 Dead and gone 2 Tree cut and removed 3 Permanent land use change to non-forest 4 Permanent access denial 5 Permanent dangerous conditions 6 Tree on a rotated point 7 Change in sampling protocol from 1990 to 1991 8 Tree could not be found in subsequent years 9 Extra Tree, Tree should not have been tallied 10 Species dropped or changed. 12 Tree diameter dropped below threshold 13 NOT USED BECAUSE IT IS TOO SCARY!!! :) 14 Site tree no longer suitable 15 Lost data 16 Site trees are no longer monumented
TREE_AGE	NUMBER(3)	Age of the tree in years at DBH.
TREE_HEIGHT	NUMBER	Height of the tree.
TREE_NOTE	VARCHAR2(80)	Notes on the tree.
OFFICE_NOTE_YEAR	NUMBER(4)	Year Office Notes was entered.
OFFICE_NOTE_SHORT	VARCHAR2(34)	Office Notes SHORT version.
OFFICE_NOTE_LONG	VARCHAR2(2000)	Office Notes LONG version - up to 2000 characters.
SITE_TREE_HISTORY	NUMBER(1)	Site tree history code. 1 Live/Survivor tree 2 Ingrowth tree on microplot 3 Ingrowth tree on subplot 4 Outgrowth tree from microplot 5 Dead Tree (qualifies as snag) 6 Dead Tree (doesn't qualify as snag) 7 Cut tree 8 Land-use change 9 Missed Tree 10 Tree should not have been tallied (extra tree) 11 Access denied 12 Dangerous condition 13 Lost data 14 Missed snag 15 Tree diameter dropped below threshold
CURRENT_TREE_AGE	NUMBER(3)	Calculated field = initial_dbh_age + (current_year - initial_dbh_year)

P3ID	NUMBER	Unique public plot identifier

TREE_1996.CSV

Name	Type	Comments
LAST_UPDATE	DATE	Date of last data view update
STATE	NUMBER(2)	State FIPS Code.
STATE_DESCR	VARCHAR2(80)	State FIPS Code description.
STATE_ABBREV	CHAR(2)	Two letter postal state code abbreviation.
COUNTY	NUMBER(3)	County FIPS Code. See the FHM_State_County_codes.xls download file for an explanation of the codes.
FHM_REGION	NUMBER(2)	FHM Region. code
FHM_REGION_DESCR	VARCHAR2(80)	FHM Region description.
PROJECT	NUMBER(4)	Code for the project to which the plot is associated. (e.g., detection monitoring, SAMAB demo, etc.)
PROJECT_DESCR	VARCHAR2(80)	Project code description.
MEASUREMENT_TYPE	NUMBER(1)	Code to indicate: 1 Plot establishment, initial mensuration visit. 2 Annual crown measurment. 3 Mensuration re-measurement.
PLOT_STATUS	NUMBER(1)	Code to indicate: 1 at least one forest condition 2 entire plot nonforest 3 entire plot access denied 4 entire plot unsafe condition 5 lost data (forested plot relocated, data lost to PDR failure) 6 lost plot (forested plot not relocated, substitute plot installed)
HEXAGON_NBR	NUMBER(7)	EMAP 7-DIGIT hexagon number. (Not identified in public data).
PLOT_NBR	NUMBER(3)	Plot number identifier within a hexagon.
POINT_NBR	NUMBER(1)	Point number (1 to 4) within the plot.
TREE_NBR	NUMBER(4)	Number identifying sapling and trees on the point.
TREE_TYPE	NUMBER(1)	tree_type 1 trees (dbh >= 5 inches). tree_type 2 saplings (dbh < 5 inches).
PK_TREE	NUMBER(6)	System generated number assigned as primary key for tree. Its primary use is for the joining of tables.
FHM_SPECIES	NUMBER(3)	Code for FHM tree species.
SPECIES_COMMON_NAME	VARCHAR2(80)	FHM tree species code description.
CURRENT_TREE_HISTORY	NUMBER(2)	Code for the current tree history. 1 Live/Survivor tree 2 Ingrowth tree on microplot 3 Ingrowth tree on subplot 4 Outgrowth tree from microplot 5 Dead Tree (qualifies as snag) 6 Dead Tree (doesn't qualify as snag) 7 Cut tree 8 Land-use change 9 Missed Tree 10 Tree should not have been tallied (extra tree) 11 Access denied 12 Dangerous condition 13 Lost data 14 Missed snag 15 Tree diameter dropped below threshold
OLD_TREE_HISTORY	NUMBER(2)	Records the previous tree history.
LAST_HISTORY	NUMBER(2)	Last history of tree.

FIELD_TREE_HISTORY	NUMBER(2)	Set if tree is a ZOMBIE tree (previous tree recorded as dead that is now alive) 1 History codes changed because of current years data. 2 History codes changed because of subsequent years data.
HISTORY_CHECK	NUMBER(1)	Value recorded by the field crew. Used for ZOMBIE trees
DBH	NUMBER	Diameter, in inches, at breast height (4.5 feet).
DBH_CHECK	NUMBER(1)	Code to indicate abnormalities with DBH 0 Normal DBH, no problems. 1 Problem with DBH. The notes should clarify the problem.
PREVIOUS_DBH	NUMBER	Previous dbh recorded for a missed tree from the previous survey.
ESTIMATED_DBH	NUMBER	Estimated dbh recorded for a missed tree from the previous survey.
DRC	NUMBER	Diameter at root collar (woodland species only).
PREVIOUS_DRC	NUMBER	Previous drc recorded for a missed tree from the previous survey
ESTIMATED_DRC	NUMBER	Estimated drc recorded for a missed tree from the previous survey.
REMEASURED_DBH	NUMBER(6,2)	Current diameter at the previous point of measurement
NBR_STEMS	NUMBER(3)	Number of stems for a woodland species.
CROWN_CLASS	NUMBER(1)	Code that categorizes the tree by the location of the crown. 1 open grown 2 dominant 3 codominant 4 intermediate 5 overtopped (suppressed).
CROWN_DENSITY	NUMBER(2)	Crown density code. Crown density is the amount of crown branches, foliage and reproductive structures that blocks light visibility through the crown, as a percentage of the crown outline. 02 0% 06 1-5% 11 6-10% 16 11-15% 96 91-95% 99 96-100%
CROWN_DIAMETER_90	NUMBER	Crown diameter, in feet, at 90 degrees to the widest point.
CROWN_DIAMETER_WIDE	NUMBER	Crown diameter, in feet, at widest point.
CROWN_DIEBACK	NUMBER(2)	Crown dieback code. Branch mortality in the outer, upper portion of the crown, as a percentage of the crown outline. 03 0% 05 1--5% 11 6-10% 16 11-15% 96 91-95% 99 96-100%

CROWN_RATIO	NUMBER(2)	Crown ratio code. Crown length as a percentage of the tree height. 00 0% 05 1--5% 10 6-10% 15 11-15% 95 91-95% 99 96-100%
CROWN_VIGOR_CLASS	NUMBER(1)	Crown vigor class code. 1 80-100% normal foliage 2 21-79% normal foliage 3 1-20% normal foliage
FOLIAGE_TRANSPARENCY	NUMBER(2)	Foliage transparency code. The amount of light penetrating through the foliage of the crown, as a percentage of the crown foliage outline. 00 0% 05 1--5% 10 6-10% 15 11-15% 95 91-95% 99 96-100%
CAUSE_OF_DEATH	NUMBER(3)	Code for cause of death. 1 Snag, cause unknown 100 Insect 200 Disease 300 Fire 400 Animal 500 Weather 600 Suppression / Competition 700 Logging and related; human damage 800 Unknown 900 True mistletoe 910 Dwarf mistletoe 999 Other (make note)
MORTALITY_YEAR	NUMBER(4)	Year that tree died.
GROUND_YEAR	NUMBER(4)	Year that tree fell to the ground.
NON_FOREST_YEAR	NUMBER(4)	Year that tree land use class was determined non-forest.
TREE_DAMAGE1_1996	NUMBER(2)	Code for type of tree damage. 1 Canker 2 Conks, fruiting bodies, and other indicators of advanced decay 3 Open wounds 4 Resinosus or gummosis 6 Blister rust (California) 11 Broken bole or roots less than 1 meter (3 feet) from bole 12 Brooms on roots or bole 13 Broken or dead (roots >1 meter (3 feet) from bole) 21 Loss of apical dominance, dead terminal 22 Broken or dead 23 Excessive branching or brooms 24 Damaged foliage or shoots 25 Discoloration of foliage 31 Other (make note)

TREE_DAMAGE_LOC1_1996	NUMBER(2)	Code for location of tree damage. 0 No Damage 1 Roots (expose) and "stump" (12 inches in height from ground level) 2 Roots and lower bole 3 Lower Bole 4 Lower and Upper Bole 5 Upper bole 6 Crownstem 7 Branches (woody stems other than main stem) 8 Buds and shoots (the most recent year's growth) 9 Foliage Damage
TREE_DAMAGE_SEVERITY1_1996	NUMBER(1)	Code for cause of tree damage. 0 1%-9% Class 1 10%-19% Class 2 20%-29% Class 3 30%-39% Class 4 40%-49% Class 5 50%-59% Class 6 60%-69% Class 7 70%-79% Class 8 80%-89% Class 9 90%-99% Class
TREE_DAMAGE2_1996	NUMBER(2)	Code for type of tree damage. See TREE_DAMAGE1_1996 for an explanation of the codes.
TREE_DAMAGE_LOC2_1996	NUMBER(2)	Code for location of tree damage. See TREE_DAMAGE_LOC1_1996 for an explanation of the codes.
TREE_DAMAGE_SEVERITY2_1996	NUMBER(1)	Code for cause of tree damage. See TREE_DAMAGE_SEVERITY1_1996 for an explanation of the codes.
TREE_DAMAGE3_1996	NUMBER(2)	Code for type of tree damage. See TREE_DAMAGE1_1996 for an explanation of the codes.
TREE_DAMAGE_LOC2_1996	NUMBER(2)	Code for location of tree damage. See TREE_DAMAGE_LOC1_1996 for an explanation of the codes.
TREE_DAMAGE_SEVERITY3_1996	NUMBER(1)	Code for cause of tree damage. See TREE_DAMAGE_SEVERITY1_1996 for an explanation of the codes.
PREVIOUS_COND_CLASS	NUMBER(1)	Condition Class Number from previous survey
CONDITION_CLASS_NBR	NUMBER(1)	An arbitrary number used to identify and map different land uses and forest conditions occurring on a plot.
PLOT_TYPE	NUMBER(1)	Code to identify plot type (1=subplot or 2=microplot)
LAND_USE_CLASS	NUMBER(2)	Land use code.
LAND_USE_CLASS_DESCR	VARCHAR2(80)	Land use code description
FOREST_TYPE	NUMBER(4)	Code for forest type on this condition class.
FOREST_TYPE_DESCR	VARCHAR2(80)	Forest type code description.
STAND_AGE	NUMBER(3)	Estimated stand age for the forested condition class defined on the plot.
STAND_ORIGIN	NUMBER(1)	Code describing how the tree stand was established. 1 Natural stand 2 Softwoods planted or seeded 3 Hardwoods planted or seeded 4 Recent harvest, no trees present
STAND_SIZE_CLASS	NUMBER(1)	Stand size based on all live trees on plot. 1 Sawtimber; 9.0"+ Softwoods + Woodland species; 11.0"+ Hardwoods 2 Poletimber; 5.0-8.9" Softwoods + Woodland species; 5.0-10.9" Hardwoods 3 Sapling/Seedling; 1.0-4.9" All 4 Nonstocked

AZIMUTH	NUMBER(3)	Azimuth. The direction, to the nearest degree, from subplot center (microplot center for saplings) to the center of the base of the tree (geographic center for multi-stemmed woodland species).
DISTANCE	NUMBER	Horizontal distance in feet from the subplot center (microplot for saplings) to the pith at the base of the tree (geographic center for multi-stemmed woodland species).
DISTANCE_REFERENCE	NUMBER(1)	The point from which the distance is referred to distref = 1 for subplot; distref = 2 for microplot.
OFFSET_POINT	NUMBER(1)	Offset point number for measurement if subplot/ microplot center cannot be occupied.
ENTRANCE_YEAR	NUMBER(4)	Year that tree was first tallied.
EXIT_YEAR	NUMBER(4)	Year that tree was dropped from FHM system.
EXIT_REASON	NUMBER(3)	Code for reason that tree was dropped from FHM system 1 Dead and gone 2 Tree cut and removed 3 Permanent land use change to non-forest 4 Permanent access denial 5 Permanent dangerous conditions 6 Tree on a rotated point 7 Change in sampling protocol from 1990 to 1991 8 Tree could not be found in subsequent years 9 Extra Tree, Tree should not have been tallied 10 Species dropped or changed. 12 Tree diameter dropped below threshold 13 NOT USED BECAUSE IT IS TOO SCARY!!! :) 14 Site tree no longer suitable 15 Lost data 16 Site trees are no longer monumented
LAST_TALLY_YEAR	NUMBER(4)	Most recent year that tree was tallied. Usually the current year
PREVIOUS_TALLY_YEAR	NUMBER(4)	Year of previous tally.
MENSURATION_YEAR	NUMBER(4)	Start of the current mensuration cycle
LAST_MENSURATION_YEAR	NUMBER(4)	Year of last visit to plot when tree was tallied and mensuration data were collected (MT1 or MT3 visit).
YEAR_DETERMINED_EXTRA	NUMBER(4)	Year tree was determined extra. Only valid for extra trees, tree history = 10.
YEAR_DETERMINED_MISSING	NUMBER(4)	Year tree was determined to be a missed tree.
TREE_NOTE	VARCHAR2(80)	Field notes on the tree.
OFFICE_NOTE_YEAR	NUMBER(4)	Year office note was entered.
OFFICE_NOTE_SHORT	VARCHAR2(34)	Note entered in data processing office (limited length)
OFFICE_NOTE_LONG	VARCHAR2(2000)	Note entered in data processing office (up to 2000 characters)
YEAR	NUMBER	Year of the DATA VIEW.
P3ID	NUMBER	Unique public plot identifier

UNDERSTORY_1996.CSV

Name	Type	Comments
LAST_UPDATE	NUMBER(7)	Date of last data view update
STATE	NUMBER(2)	State FIPS Code.
STATE_DESCR	NUMBER(2)	State FIPS Code description.
STATE_ABBREV	NUMBER(2)	Two letter postal state code abbreviation.
COUNTY	NUMBER(2)	County FIPS Code. See the FHM_State_County_codes.xls download file for an explanation of the codes.
PROJECT	NUMBER(2)	Code for the project to which the plot is associated. (e.g., detection monitoring, SAMAB demo, etc.)
PROJECT_DESCR	NUMBER(1)	Project code description.

HEXAGON_NBR	NUMBER(7)	EMAP 7-DIGIT hexagon number. (Not identified in public data).
PLOT_NBR	NUMBER(3)	Plot number identifier within a hexagon.
POINT_NBR	NUMBER(1)	Point number (1 to 4) within the plot.
PCT_FERNS	NUMBER(2)	Percent cover of ferns within the microplot.
PCT_HERBS	NUMBER(2)	Percent cover of herbs within the microplot.
PCT_LICHENS	NUMBER(2)	Percent cover of lichens within the microplot.
PCT_MOSS	NUMBER(2)	Percent cover of moss within the microplot.
PCT_SEEDLINGS	NUMBER(2)	Percent cover of seedlings <1 foot in length within the microplot
PCT_SHRUBS	NUMBER(2)	Percent cover of shrubs within the microplot.
P3ID	NUMBER	Unique public plot identifier