

PLOT-BASED SAMPLE PROJECT > Data Collection Options

? Plot Information

Use this table to help guide your field data collection decisions:

The Description column provides more information about each data variable. The extra model components shown in the right-hand columns require certain optional data to be collected. The optional data that must be collected for each extra model component are designated by an "x".

Data Variables		Description	Shrubs	Plantable space
Minimum required fields				
Percent measured		The amount of plot than can be accessed, measured, and/or included in this study	REQUIRED	
Percent tree cover		The amount of the plot covered by tree canopy (in percent).	REQUIRED	
General fields				
Land use	Actual land use	Land use type(s) that are seen in the field		
	Percent of plot	The amount of the plot area covered by each land use		
Percent shrub cover		The amount of the plot covered by shrub canopy (in percent)	x	
Percent plantable space		The amount of the plot area that is plantable for trees (i.e., plantable soil that is not under tree canopy or other overhead restrictions and where tree planting/establishment would not be prohibited due to land use, such as a baseball field)		x
Plot address		Street address of plot or notes for locating plots in areas without street addresses		
GPS coordinates		Longitude and latitude of plot center		
Reference objects	Object type	Visible landmark(s), such as a stop sign or permanent structure, that are seen when standing at plot center		
	Direction	The direction from the plot center to the reference object		
	Distance	The distance from the plot center to the reference object		
	DBH	Stem diameter measured at breast height (DBH) if the reference object is a tree		
Ground cover	Ground cover	Ground cover type(s) that are seen in the field		
	Percent of plot	The amount of the plot area covered by each ground cover		
Shrub details	Species	Name of shrub species	x	
	Height	Average height of shrub group (i.e., mass of shrubs of the same species)	x	
	Percent of area	The amount of the shrub area in the plot covered by each shrub group	x	
	Percent missing	The percent of the shrub group volume that is missing (i.e., not occupied by leaves)	x	

? Tree Information

Use this table to help guide your field data collection decisions:

The Description column provides more information about each data variable. The extra model components shown in the right-hand columns require certain optional data to be collected. The optional data that must be collected for each extra model component are designated by an "x".

Data Variables		Description	Energy	Pests (IPED)	Hydro
Minimum required fields					
Species		Identify and record the species and genus names of each tree	REQUIRED		
DBH		Measure the tree stem diameter at breast height and record the measurement for each tree	REQUIRED		
General site fields					
Land use		Land use type in which tree is located			
Status		Status of tree as planted or self-seeded			
Distance to plot center		The distance from the tree to plot center			
Direction to plot center		The direction from the tree to plot center			
Street tree/non-street tree		Identify if tree is a street tree or not (Y/N)			
Public/private		The classification of each tree as city managed (public) or not (private)			
Cover under canopy	Percent impervious	The percent of the area beneath the drip line of the tree that is impervious			x
	Percent shrub	The percent of the area beneath the drip line of the tree that is shrub			x
Tree detail fields					
Total tree height		Height from the ground to the top (alive or dead) of the tree			
Crown size	Height to live top	Height from the ground to the live top of the tree			
	Height to crown base	Height from the ground to the base of the live crown			
	Crown width	The width of the crown in two directions: north-south and east-west			

	Percent crown missing	Percent of the crown volume that is not occupied by branches and leaves			
Condition & percent dieback		Estimate of the percent of dieback (i.e., dead branches) in the crown recorded as it relates to condition for each tree			
Crown light exposure		Number of sides of the tree receiving sunlight from above (maximum of 5)			
Energy	Direction	Direction from tree to the closest part of the building	x		
	Distance	Shortest distance from tree to the closest part of the building	x		
Management fields					
Maintenance recommended		User defined general maintenance recommendations (e.g. routine prune) for the tree			
Maintenance task		User defined priority maintenance tasks (e.g., pest treatment) for the tree			
Sidewalk conflict		Extent of damage to sidewalks from nearby trees defined by user			
Utility conflict		User defined potential or existing conflicts between tree branches and overhead utility lines			
Pests (IPED)	Signs and symptoms of tree stress	Absence or presence of signs and symptoms of dieback, epicormic sprouts, wilted foliated, environmental stress, or human stress		x	
	Signs and symptoms of foliage/twigs	Absence or presence of signs and symptoms of defoliation, discolored foliage, abnormal foliage, or insect signs and extent of foliage affected		x	
	Signs and symptoms of branches/bole	Absence or presence of signs and symptoms of insects or diseases on the branches/bole and location of signs or symptoms		x	

COMPLETE INVENTORY PROJECT > Data Collection Options

? Tree Information

Use this table to help guide your field data collection decisions:

The Description column provides more information about each data variable. The extra model components shown in the right-hand columns require certain optional data to be collected. The optional data that must be collected for each extra model component are designated by an "x".

Data Variables		Description	Energy	Pests (IPED)
Minimum required fields				
Species		Identify and record the species and genus names of each tree	REQUIRED	
DBH		Measure the tree stem diameter at breast height and record the measurement for each tree	REQUIRED	
General site fields				
Strata		Sub-units by which study area are divided for analysis (e.g., land use, neighborhood)		
Land use		Land use type in which tree is located		
Status		Status of tree as planted or self-seeded		
GPS coordinates		Longitude and latitude of tree		
Street tree/non-street tree		Identify if tree is a street tree or not (Y/N)		
Public/private		The classification of each tree as city managed (public) or not (private)		
Tree detail fields				
Total tree height		Height from the ground to the top (alive or dead) of the tree		
Crown size	Height to live top	Height from the ground to the live top of the tree		
	Height to crown base	Height from the ground to the base of the live crown		
	Crown width	The width of the crown in two directions: north-south and east-west		
	Percent crown missing	Percent of the crown volume that is not occupied by branches and leaves		
Condition & percent dieback		Estimate of the percent of dieback (i.e., dead branches) in the crown recorded as it relates to condition for each tree		
Crown light exposure		Number of sides of the tree receiving sunlight from above (maximum of 5)		
Energy	Direction	Direction from tree to the closest part of the building	x	
	Distance	Shortest distance from tree to the closest part of the building	x	
Management fields				
Maintenance recommended		User defined general maintenance recommendations (e.g. routine prune) for the tree		
Maintenance task		User defined priority maintenance tasks (e.g., pest treatment) for the tree		
Sidewalk conflict		Extent of damage to sidewalks from nearby trees defined by user		
Utility conflict		User defined potential or existing conflicts between tree branches and overhead utility lines		
Pests (IPED)	Signs and symptoms of tree stress	Absence or presence of signs and symptoms of dieback, epicormic sprouts, wilted foliage, environmental stress, or human stress		x
	Signs and symptoms of foliage/twigs	Absence or presence of signs and symptoms of defoliation, discolored foliage, abnormal foliage, or insect signs and extent of foliage affected		x
	Signs and symptoms of branches/bole	Absence or presence of signs and symptoms of insects or diseases on the branches/bole and location of signs or symptoms		x