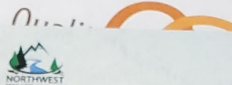
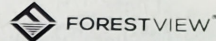


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"Providing a Balanced Approach to Natural Resource Management."

## Conventional Inventory or Lidar-Assisted Inventory: What is Right for Your Property?



### Conventional Inventory:

One plot per 3 acres on 90,000 acres equals 30,000 plots for a 100% inventory. Standard assumption is 20% (6,000) plots yields a believable result (accuracy unknown). The cost of a variable radius inventory plot is ~\$35, and with 6 field staff, 6,000 plots could be completed in one field season (5 seasons to inventory 90,000 acres). Data compiling, growth modeling and vegetation typing would be additional costs. Total cost of 100% inventory on 90,000 acres would be ~\$1,050,000.00

One plot per ~200 acres for a pre-stratified forest (up to 48 strata). For 90,000 acres there would be a total of ~450 fixed-radius plots. The cost of a fixed radius geolocated Lidar verification plot is \$515.00 and it would take approximately 12 weeks for three staff to complete the field data and 12 additional weeks for processing (total inventory in 12-18 months). Lidar and Imagery acquisition would be \$1.25 per acre and processing a single-tree census inventory \$0.79 per acre (accuracy 90+%, all stems, heights, tree volume, live/dead etc.). The total cost of a Lidar-assisted inventory on 90,000 acres would be ~\$415,350.00

### PRODUCTS

#### Tree List of Data for plots and stands

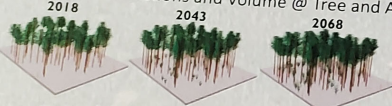
PLUT	SP	CC	DBH	TREES	HT	CROWN	BOTTOM	MIDDLE	TOP	INDICES	BRANCHES	BRANCHES	BRANCHES	ETHNIC	MIDRIC	TOPRIC
54	8 TP	24.8	1	99.0	80	0	0	0	0	0	0	0	0	0	0	0
58	8 TP	24.8	1	99.0	80	0	0	0	0	0	0	0	0	0	0	0
109	18 TP	24.8	1	105.0	80	0	0	0	0	0	0	0	0	0	0	0
150	18 TP	24.8	1	105.0	80	0	0	0	0	0	0	0	0	0	0	0
192	18 TP	24.8	1	105.0	80	0	0	0	0	0	0	0	0	0	0	0
242	18 TP	24.8	1	105.0	80	0	0	0	0	0	0	0	0	0	0	0
292	18 TP	24.8	1	105.0	80	0	0	0	0	0	0	0	0	0	0	0

### PRODUCTS

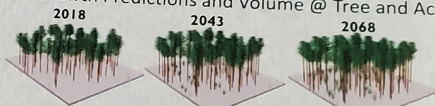
#### Tree List of Data for plots and stands

PLUT	SP	CC	DBH	TREES	HT	CROWN	BOTTOM	MIDDLE	TOP	INDICES	BRANCHES	BRANCHES	BRANCHES	ETHNIC	MIDRIC	TOPRIC
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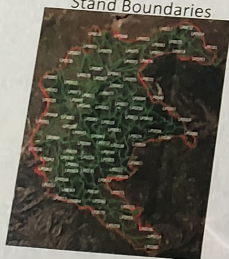
### Forest Growth Predictions and Volume @ Tree and Acre.



### Forest Growth Predictions and Volume @ Tree and Acre.



### Stand Boundaries

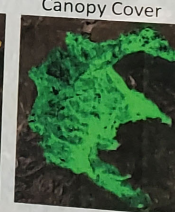


Per/Acre  
 Site productivity index,  
 Harvest systems maps,  
 Regeneration estimates,  
 Carbon/Biomass maps.

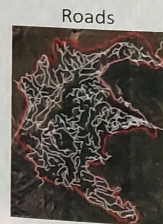
### Forage Ratio



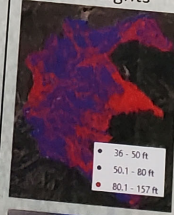
### Canopy Cover



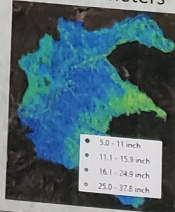
### Roads



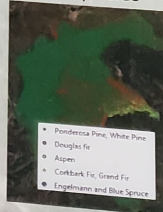
### Tree Heights



### Tree Diameters



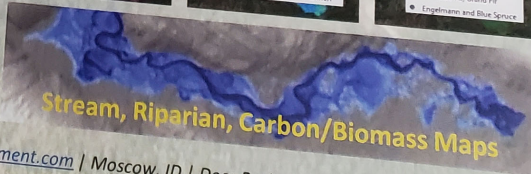
### Tree Species



The Lidar-Assisted inventory mapping products are presented at a Single-Tree level rather than a Per/Acre level.

Tree Count Accuracy	Conventional	??%
	Lidar-Assist	91-99%
Inventory Cost	Conventional	100%
	Lidar-Assist	~30 to 70% Less
Completion Time	Conventional	~5 years
	Lidar-Assist	~12-18 Months
Species Accuracy	Conventional	??%
	Lidar-Assist	78-88%

### Stream, Riparian, Carbon/Biomass Maps



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