

## **Appendix C – Tally Cards With Examples**

## National Forest Inventory Header Information

Data ID												
Project ID				Plot Sample #				Network Label				

Measurement Date						Measmnt Number
Y	Y	M	O	N	D	

Crew (Initials)								
Person 1			Person 2			Person 3		

Plot Data Record		
Data Collected (Y/N)	Y	N
Integrated	<input type="checkbox"/>	<input type="checkbox"/>
Plot Navigation	<input type="checkbox"/>	<input type="checkbox"/>
Site Information	<input type="checkbox"/>	<input type="checkbox"/>
Disturbance	<input type="checkbox"/>	<input type="checkbox"/>
Origin	<input type="checkbox"/>	<input type="checkbox"/>
Treatment	<input type="checkbox"/>	<input type="checkbox"/>
Woody Debris	<input type="checkbox"/>	<input type="checkbox"/>
Surface Substrate	<input type="checkbox"/>	<input type="checkbox"/>
Shrub and Herb	<input type="checkbox"/>	<input type="checkbox"/>
Forest Floor Organic	<input type="checkbox"/>	<input type="checkbox"/>
Small Tree	<input type="checkbox"/>	<input type="checkbox"/>
Large Tree	<input type="checkbox"/>	<input type="checkbox"/>
Soil Pit Features	<input type="checkbox"/>	<input type="checkbox"/>
Soil Pit Horizons	<input type="checkbox"/>	<input type="checkbox"/>
Horizon Information	<input type="checkbox"/>	<input type="checkbox"/>
Soil Bulk Density	<input type="checkbox"/>	<input type="checkbox"/>
# of Photos	<input type="checkbox"/>	<input type="checkbox"/>

[illegible]

## National Forest Inventory Header Information

Data ID											
Project ID				Plot Sample #				Network Label			

[illegible]

## National Forest Inventory Compass Information

Access Point Location									
Descrip.									
GPS Access Point									
File ID									
Corrected UTM									
Northing									
Easting									
Elevation									

## National Forest Inventory Compass Information

Data ID												
Project ID				Plot Sample #				Network Label				

[illegible]

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Crew (Initials)								
Person 1			Person 2			Person 3		

[illegible][illegible]

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Data ID														
Project ID				Plot Sample #				Network Label						

Measurement Date						Measmnt Number
Y	Y	M	O	N	D	

Crew (Initials)								
Person 1			Person 2			Person 3		

[illegible][illegible]

**National Forest Inventory  
Woody Debris Transect 1**

Random Azimuth	Horizontal Length Observed			
	.	m	Of	.

[illegible]



**National Forest Inventory**  
**Small Woody Debris Transect 1**

Data ID													
Project ID				Plot Sample #				Network Label					

TRANSECT 1 - Small Woody Debris													
Total Pieces Class 1 (1.1 to 3.0 cm)				Total Pieces Class 2 (3.1 to 5.0 cm)				Total Pieces Class 3 (5.1 to 7.5 cm)				Avg. Decay Class	
47	48	49	50	51	52	53	54	55	56	57	58	59	

Small Woody Debris, Dot Tally Total Number of Pieces											
WORKSHEET ONLY - DATA WILL NOT BE KEYPUNCHED											
Class 1 (1.1 to 3.0 cm)				Class 2 (3.1 to 5.0 cm)				Class 3 (5.1 to 7.5 cm)			

## National Forest Inventory Woody Debris Transect 2

Data ID											
Project ID			Plot Sample #			Network Label					

[illegible]

Crew (Initials)								
Person 1			Person 2			Person 3		

Random Azimuth	Horizontal Length Observed									
				.	m	Of		.		m

No.		Genus				Species			Variety			Diameter				Decay Transect	Decay Piece	Tilt Angle (deg)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
0	1													.					
0	2													.					
0	3													.					
0	4													.					
0	5													.					
0	6													.					
0	7													.					
0	8													.					
0	9													.					
1	0													.					
1	1													.					
1	2													.					
1	3													.					
1	4													.					
1	5													.					
1	6													.					
1	7													.					
1	8													.					
1	9													.					
2	0													.					
2	1													.					
2	2													.					
2	3													.					
2	4													.					
2	5													.					

[illegible]

National Forest Inventory  
Woody Debris Transect 1 - Surface Substrate Tally

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Data ID											
Project ID				Plot Sample #				Network Label			

Measurement Date								Measmnt Number	
Y	Y	M	O	N	D	D			

Crew (Initials)								
Person 1			Person 2			Person 3		

Random Azimuth			Horizontal Length Observed						
				.	m	Of		.	m

TRANSECT 1 - Percent Surface Substrate																												
Percent Organic			Avg. Depth (cm)				Percent Buried Wood			Avg. Depth (cm)				Percent Decay Wood			Percent Bedrock			Percent Rock			Percent Mineral Soil			Percent Water		
60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
					.							.																

Surface Substrate Tally										
WORKSHEET ONLY - DATA WILL NOT BE KEYPUNCHED										
Station	Organic	Depth (cm)	Buried Wood	Depth (cm)	Decayed Wood	Bedrock	Rock or Cobbles	Mineral Soil	Water	
1		.		.						
2		.		.						
3		.		.						
4		.		.						
5		.		.						
6		.		.						
7		.		.						
8		.		.						
9		.		.						
10		.		.						
11										
12										
13										
14										
15										
Total		.		.						

## National Forest Inventory

### Woody Debris Transect 1 - Surface Substrate Tally

Data ID											
Project ID			Plot Sample #			Network Label					

Instructions: For every meter along woody debris transect (corrected to horizontal), to the edge of the large tree plot, check box applicable to surface substrate type. For organic and buried wood, measure and record depth in cm to the nearest 0.1 cm. Total the number of surface substrate occurrences and the depths in each category. **For surface substrate definitions, see below.**

Note 1: in plots where the organic layer is > 30 cm, depth measurements only need to be recorded every 2nd meter of transect.

Note 2: in plots where the organic layer is > 60 cm, record "depth of organic" value as > 60 cm.

Surface Substrate	Definition
Organic matter	Surficial accumulations of organic materials include the following: 1) organic layers $\geq 1$ cm thick overlying mineral soil, cobbles, stones or bedrock 2) layers of decaying wood < 10 cm thick 3) large animal droppings 4) areas covered by mats of bunchgrasses (mats include L horizons)
Buried wood	The proportion of the ground surface covered by buried wood: 1) class 5 woody debris with > 50% below the surrounding surface 2) does not include freshly fallen material that has yet to decompose 3) may be covered by mosses, lichens, liverworts, or other plants 4) if an organic layer has developed over the wood, buried wood must be > 10 cm thick otherwise it is classed as "organic matter".
Decaying wood	Fallen trees, large branches on the ground surface, and partially buried stumps with an exposed edge: 1) does not include freshly fallen material that has not yet begun to decompose (e.g. decay class 1 and 2 logs). Note that if there is a recently fallen class 1 or class 2 log blocking measurement, move the sample point to just beside the log (see anomalous conditions) 2) may be covered with mosses, lichens, liverworts, or other plants 3) if an organic layer has developed over the wood, decaying wood must have > 50% of its thickness above the surrounding surface, otherwise it is classed as "buried wood".
Bedrock	Bedrock includes exposed consolidated mineral material: 1) may have a partial covering of mosses, lichens, liverworts, or other epilithic plants 2) does not qualify as bedrock if covered by unconsolidated mineral or organic material $\geq 1$ cm in thickness.
Rock or cobbles and stones	Rock (cobbles and stones) include exposed unconsolidated rock fragments > 7.5 cm in diameter: 1) may be covered by mosses, lichens, liverworts, epilithic plants (plants attached to an inorganic substrate); or an organic layer < 1 cm in thickness 2) does not include gravels < 7.5 cm in diameter.
Mineral Soil	Unconsolidated mineral material of variable texture not covered by organic materials: 1) may have a partial cover of mosses, lichens, and liverworts 2) often associated with cultivation, tree tip-ups, active erosion or deposition, severe fires, trails, or late snow retention areas 3) includes small cobbles and gravel < 7.5 cm in diameter 4) areas of living grass or forb cover where mineral soil is visible between stems are classed as mineral soil, as are exposed Ah or Ae horizons.
Water	Streams or areas of open water in bogs or fens. Note: this does not include "casual" or non-permanent water. The sample point should be recorded to reflect the conditions at the time of sampling, e.g. a gravel or sandbar below the high water mark for a stream would be recorded as mineral soil.

National Forest Inventory  
Woody Debris Transect 2 - Surface Substrate Tally

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Data ID											
Project ID			Plot Sample #			Network Label					

Measurement Date							Measmnt Number
Y	Y	M	O	N	D	D	

Crew (Initials)								
Person 1			Person 2			Person 3		

Random Azimuth	Horizontal Length Observed					
	.	m	Of	.	m	

TRANSECT 2 - Percent Surface Substrate																												
Percent Organic			Avg. Depth (cm)				Percent Buried Wood			Avg. Depth (cm)				Percent Decay Wood			Percent Bedrock			Percent Rock			Percent Mineral Soil			Percent Water		
60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
					.							.																

Surface Substrate Tally											
WORKSHEET ONLY - DATA WILL NOT BE KEYPUNCHED											
Meter	Organic	Depth (cm)		Buried Wood	Depth (cm)		Decayed Wood	Bedrock	Rock or Cobbles	Mineral Soil	Water
1			.			.					
2			.			.					
3			.			.					
4			.			.					
5			.			.					
6			.			.					
7			.			.					
8			.			.					
9			.			.					
10			.			.					
11											
12											
13											
14											
15											
Total			.			.					

**National Forest Inventory**  
**Woody Debris Transect 2 - Surface Substrate Tally**

Data ID													
Project ID				Plot Sample #				Network Label					

Instructions: For every meter along woody debris transect (corrected to horizontal), to the edge of the large tree plot, check box applicable to surface substrate type. For organic and buried wood, measure and record depth in cm to the nearest 0.1 cm. Total the number of surface substrate occurrences and the depths in each category. **For surface substrate definitions, see below.**

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Decaying wood	Fallen trees, large branches on the ground surface, and partially buried stumps with an exposed edge: 1) does not include freshly fallen material that has not yet begun to decompose (e.g. decay class 1 and 2 logs). Note that if there is a recently fallen class 1 or class 2 log blocking measurement, move the sample point to just beside the log (see anomalous conditions) 2) may be covered with mosses, lichens, liverworts, or other plants 3) if an organic layer has developed over the wood, decaying wood must have > 50% of its thickness above the surrounding surface, otherwise it is classed as "buried wood".
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Mineral Soil	Unconsolidated mineral material of variable texture not covered by organic materials: 1) may have a partial cover of mosses, lichens, and liverworts 2) often associated with cultivation, tree tip-ups, active erosion or deposition, severe fires, trails, or late snow retention areas 3) includes small cobbles and gravel < 7.5 cm in diameter 4) areas of living grass or forb cover where mineral soil is visible between stems are classed as mineral soil, as are exposed Ah or Ae horizons.
Water	Streams or areas of open water in bogs or fens. Note: this does not include "casual" or non-permanent water. The sample point should be recorded to reflect the conditions at the time of sampling, e.g. a gravel or sandbar below the high water mark for a stream would be recorded as mineral soil.

**National Forest Inventory**  
**Microplot and Shrub and Herb Species List**

Data ID															
Project ID				Plot Sample #				Network Label				Micro Plot No.			
												1	2	3	4

Measurement Date						Measmnt Number
Y	Y	M	O	N	D	

Crew (Initials)								
Person 1			Person 2			Person 3		

Fixed Area Plot Plot Size (ha)		Plot		
		Full	Half	Quarter
■				

[illegible]

Oven Dry Weight (g)															
Shrubs				Herbs and Grasses				Mosses and Lichens				Fine WD (<=1.0 cm)			
			.				.				.				.

Ecological Plot (Vegetation Species List)						
Fixed Area Plot Plot Size (ha)				Plot		
				Full	Half	Quarter
.						

## National Forest Inventory Soil Header Information

Data ID											
Project ID			Plot Sample #			Network Label					

Measurement Date							Measmnt Number
Y	Y	M	O	N	D	D	

Crew (Initials)								
Person 1			Person 2			Person 3		

[illegible]



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[illegible]

## National Forest Inventory Small Tree Information

Data ID												
Project ID				Plot Sample #				Network Label				

Measurement Date						Measmnt Number
Y	Y	M	O	N	D	

Crew (Initials)								
Person 1			Person 2			Person 3		

Fixed Area Plot Plot Size (ha)		Plot		
		Full	Half	Quarter
1	1			
1	2			
1	4			
1	9			
1	16			
1	25			
1	36			
1	49			
1	64			
1	81			
1	100			
1	121			
1	144			
1	169			
1	196			
1	225			
1	256			
1	289			
1	324			
1	361			
1	400			
1	441			
1	484			
1	529			
1	576			
1	625			
1	676			
1	729			
1	784			
1	841			
1	900			
1	961			
1	1024			
1	1089			
1	1156			
1	1225			
1	1296			
1	1369			
1	1444			
1	1521			
1	1600			
1	1681			
1	1764			
1	1849			
1	1936			
1	2025			
1	2116			
1	2209			
1	2304			
1	2401			
1	2500			
1	2601			
1	2704			
1	2809			
1	2916			
1	3025			
1	3136			
1	3249			
1	3364			
1	3481			
1	3600			
1	3721			
1	3844			
1	3969			
1	4096			
1	4225			
1	4356			
1	4489			
1	4624			
1	4761			
1	4900			
1	5041			
1	5184			
1	5329			
1	5476			
1	5625			
1	5776			
1	5929			
1	6084			
1	6241			
1	6400			
1	6561			
1	6724			
1	6889			
1	7056			
1	7225			
1	7396			
1	7569			
1	7744			
1	7921			
1	8100			
1	8281			
1	8464			
1	8649			
1	8836			
1	9025			
1	9216			
1	9409			
1	9604			
1	9801			
1	10000			

Plot Type		

[illegible]

**National Forest Inventory  
Large Tree Information**

Data ID												
Project ID				Plot Sample #				Network Label				

Measurement Date							Measmnt Number
Y	Y	M	O	N	D	D	

Crew (Initials)								
Person 1			Person 2			Person 3		

Fixed Area Plot Plot Size (ha)				Plot	
				Full	Half
•					

Plot Type		

[illegible]

National Forest Inventory  
Stump Plot

Data ID											
Project ID			Plot Sample #			Network Label					

Measurement Date						Measmnt Number
Y	Y	M	O	N	D	

Crew (Initials)								
Person 1			Person 2			Person 3		

Fixed Area Plot Plot Size (ha)				Plot		
				Full	Half	Quarter
.						

Plot Type		

Stumps  $\geq 4.0$  cm @DIB and length  $\leq 1.3$  m

[illegible]

## National Forest Inventory Height and Age Information

Data ID												
Project ID				Plot Sample #				Network Label				

Measurement Date							Measmnt Number
Y	Y	M	O	N	D	D	

Crew (Initials)								
Person 1			Person 2			Person 3		

[illegible]