

## BOSQUE ECOSYSTEM MONITORING PROGRAM

# Woody Debris Monitoring Directions

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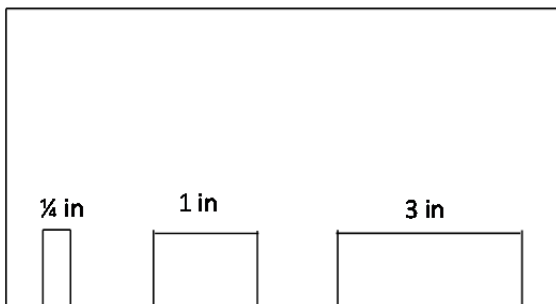
### Woody Debris Monitoring Background

After fires in the Albuquerque bosque in 2003-2004, natural resource managers began wondering what areas of the bosque posed the highest fire dangers. Woody debris data provide information on what areas pose a high fire threat. Initially, natural resource managers cleared dead and down wood adjacent to river crossings for fear of someone throwing a cigarette out of their car and starting a fire. They then proceeded to clear the rest of the bosque.

Woody debris procedures are the same ones as used by NM State Forestry and thus are in English rather than metric measurements.

### Woody Debris Materials

- woody debris data sheet
- clipboard and pencil
- "go/no-go" card (see image)
- calipers
- measuring tape in feet
- clinometer
- digital camera
- rebar
- mallet
- blue spray paint
- GPS unit
- map of sites



### Woody Debris Monitoring Directions

Find the northeast corner of vegetation plot to be assessed. If there is no stake at northeast corner, measure 5 m north from the southeast corner, perpendicular to south line of vegetation transect. This is the starting place. Install rebar, spray blue and tag.

Extend measuring tape 50 feet parallel to south line of vegetation transect. Take a photo at eye level down the sampling line and obtain GPS coordinate if needed (see data sheet). If needed, determine the slope of the transect line using the clinometer, with helper standing at the end of the transect.

Unless you are measuring depth of wood chips, do not count wood that looks like it has been chipped unless it is longer than 6 inches.

For zero to six feet, count the number of times that wood with a diameter of less than  $\frac{1}{4}$  inch intersects the sampling line. Do not count wood in the duff layer for entire procedure. Count wood that crosses a plant up to 6 feet.

For zero to 12 feet, count the number of times wood with a diameter between  $\frac{1}{4}$  inch and 1 inch intersects the sampling line. Record the predominate species of wood from 0-1 inch diameter. If two or three species comprise the downed debris, estimate the proportion of each species.

For the entire length of the transect, count the number of intersections of wood between 1 and 3 inches. Again, for the entire length, measure the exact diameter of any wood more than 3 inches wide using calipers and determine the species.

Determine duff (decomposing leaves) depth to the nearest 0.1 inch using a ruler at 1 foot and 5 feet from the northeast corner. Note: duff does not include chipped wood!

Determine depth of chips to the nearest 0.1 inch using a ruler at 2 feet and 6 feet from the northeast corner. Include *all* wood chips!

Assess fuel depth at 10 feet, 20 feet and 30 feet by measuring the maximum height of dead wood that intersects the transect at a 4-inch circle around each point. Again, the sampling plane is up to 6 feet high.



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DATE: \_\_\_\_\_ SITE: \_\_\_\_\_ DATA COLLECTORS: \_\_\_\_\_

GPS for site: N \_\_\_\_\_ W \_\_\_\_\_

Plot	Slope	GPS NE corner		GPS NW corner		Photo NE
		N	W	N	W	
Duff at 1 ft (X.X in)	Duff at 5 ft ( X.X in)	Chips at 2 ft ( X.X in)		Chips at 6 ft ( X.X in)		
Fuel depth 10 ft (X in)	Fuel depth 20 ft ( X in)	Fuel depth 30 ft ( X in)				
0-¼ in (0-6 ft)	¼-1 in (0-12 ft)	Species 0-1 in		1-3 in (0-50 ft)		
>3 in (cm)	>3 in (cm)	>3 in (cm)		>3 in (cm)		>3 in (cm)
Species	Species	Species		Species		Species

Plot	Slope	GPS NE corner		GPS NW corner		Photo NE
		N	W	N	W	
Duff at 1 ft (X.X in)	Duff at 5 ft (X.X in)	Chips at 2 ft (X.X in)		Chips at 6 ft (X.X in)		
Fuel depth 10 ft (X in)	Fuel depth 20 ft (X in)	Fuel depth 30 ft (X in)				
0-¼ in (0-6 ft)	¼-1 in (0-12 ft)	Species 0-1 in		1-3 in (0-50 ft)		
>3 in (cm)	>3 in (cm)	>3 in (cm)		>3 in (cm)		>3 in (cm)
Species	Species	Species		Species		Species

Data entered by: \_\_\_\_\_ Date: \_\_\_\_\_ || Data entry checked by: \_\_\_\_\_ Date: \_\_\_\_\_