

**Central Coast Rangeland Coalition, Workshop on Soil Carbon**  
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**“RDM and Soil Health”**

**Handout from Presenter:**

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**Residual Dry Matter (RDM) on California Annual Grasslands (Bartolome et al. 2006):**

“RDM is a standard used by land management agencies for assessing the level of grazing use on annual rangeland and associated savannas and woodlands (George et al. 1996). RDM is the old herbaceous plant material left standing or on the ground at the beginning of a new growing season. It indicates the combined effects of the previous season’s forage production, breakdown over summer, and its consumption by grazing animals of all types. The standard assumes that the amount of RDM remaining in the fall, subject to site conditions and variations in weather, will influence subsequent species composition and forage production.”

**RDM Benefits to Soil/Ecosystem Health (Bartolome et al. 2006):**

“Properly managed RDM can be expected to provide a high degree of protection from soil erosion and nutrient losses... Because of the limited amount of research information, standards and score cards normally have to be developed using local experience and general guidelines such as those that appear in this publication. Numerous agencies have successfully applied the RDM-based method for managing grazing intensity over the past 20 years.”

**RDM Minimum Standards (Bartolome et al 2006):**

Table 1. Minimum RDM standards for **dry annual grassland** in pounds per acre (dry weight)

Woody cover (%)	RDM standard for percent slope (lb/acre)			
	0–10	10–20	20–40	>40
0-25	300	400	500	600
25-50	300	400	500	600
50-75	NA	NA	NA	NA
75-100	NA	NA	NA	NA

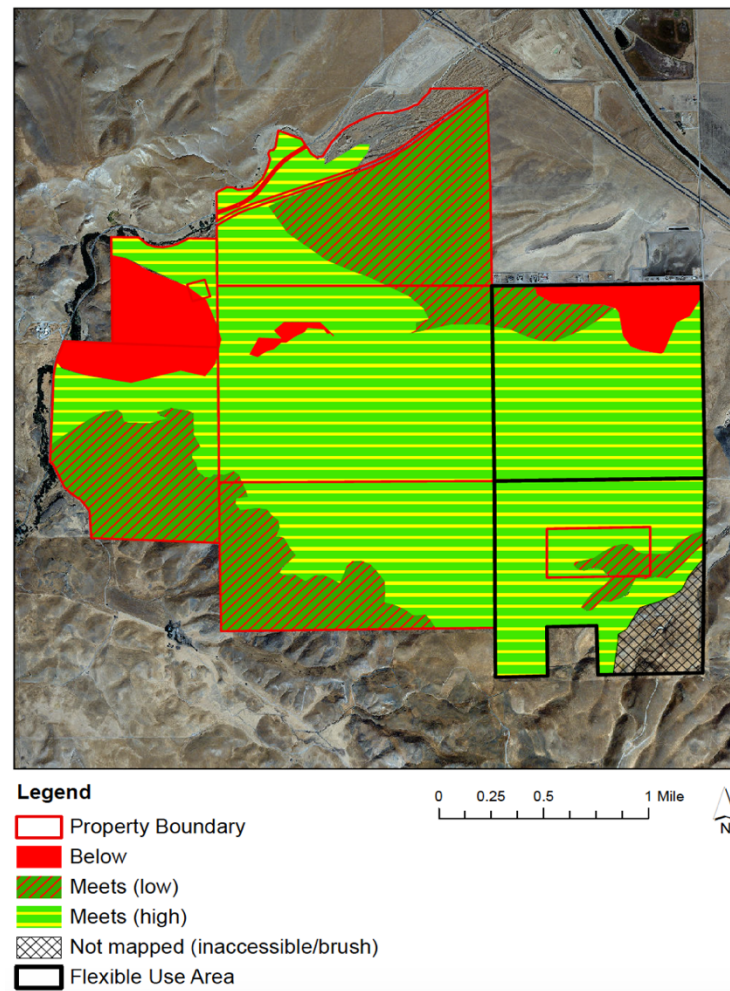
Table 2. Minimum RDM standards for **annual grassland/hardwood rangeland** in pounds per acre (dry weight)

Woody cover (%)	RDM standard for percent slope (lb/acre)			
	0–10	10–20	20–40	>40
0-25	500	600	700	800
25-50	400	500	600	700
50-75	200	300	400	500
75-100	100	200	250	300

Table 3. Minimum RDM standards for **coastal prairie** in pounds per acre (dry weight)

Woody cover (%)	RDM standard for percent slope (lb/acre)			
	0–10	10–20	20–40	>40
0-25	1,200	1,500	1,800	2,100
25-50	800	1,000	1,200	1,400
50-75	400	500	600	700
75-100	200	250	300	350

Example Results of RDM Mapping (P. Van Hoorn and L. Ford 2014 for Contra Costa Water District, by permission):



#### References:

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