



TRADEOFFS IN MANAGING FOR MULTIPLE ECOSYSTEM SERVICES



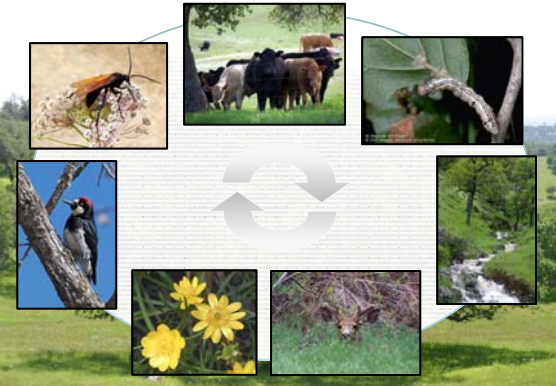
Leslie Roche
University of California, Davis

MULTIPLE ECOSYSTEM SERVICES

Hardwood rangelands: Largely privately owned
~ 16 million acres

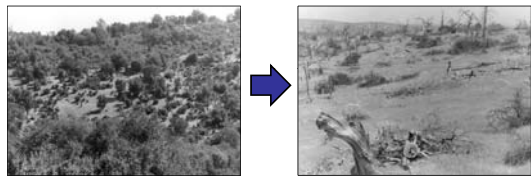


MULTIPLE ECOSYSTEM SERVICES



WOODY 'WEEDS' & HOMOGENEOUS GRASSLAND LANDSCAPES

"Grass, not oaks, make your cows fat!" UCCE 1960s

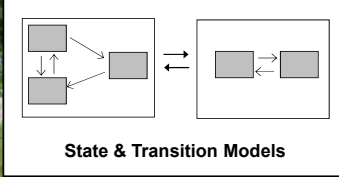


Brush Management
Goal: Forage production

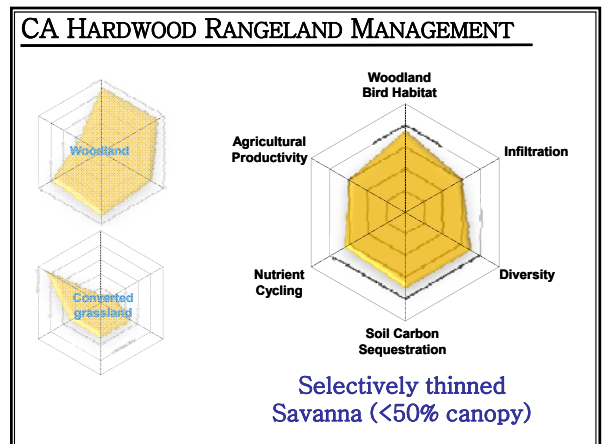
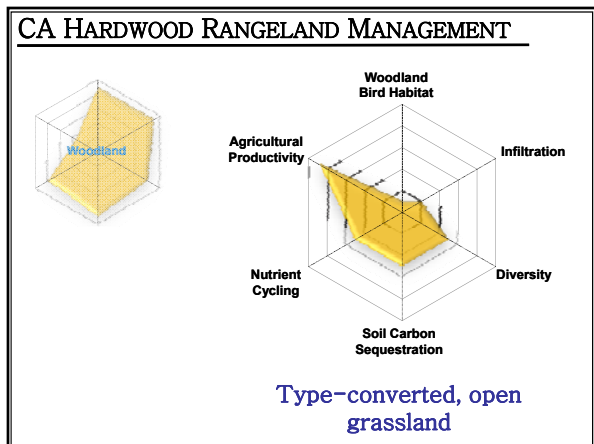
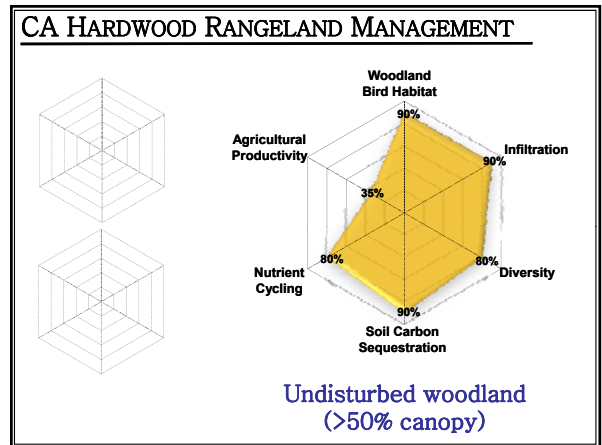
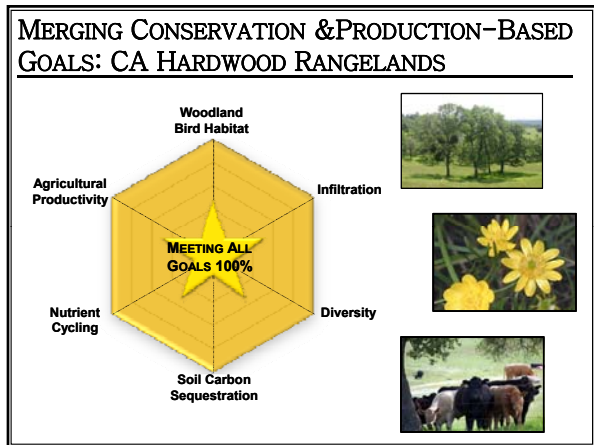
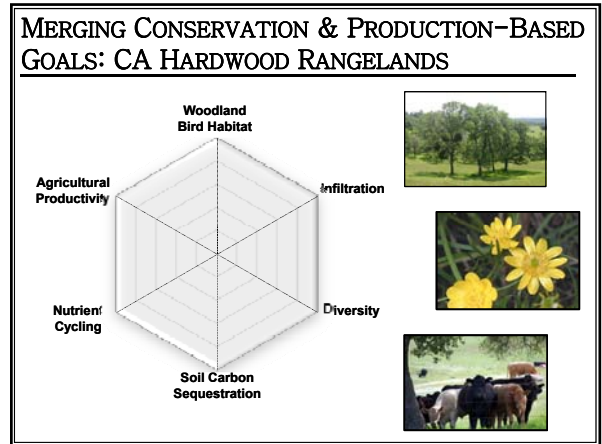
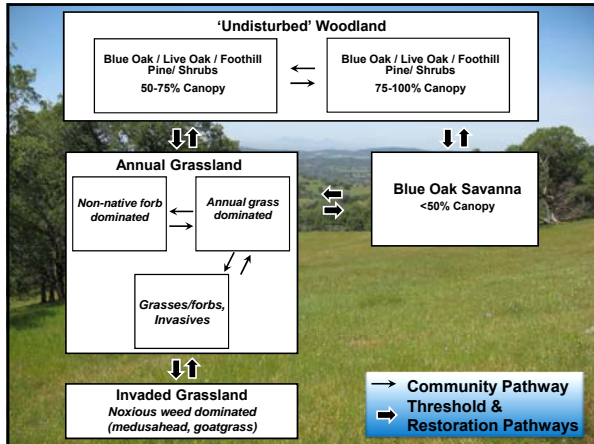
MANAGING FOR MULTIPLE OUTCOMES (not just one, or one at a time)

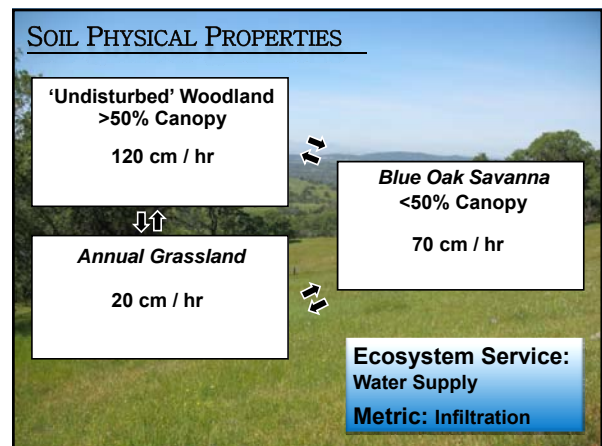
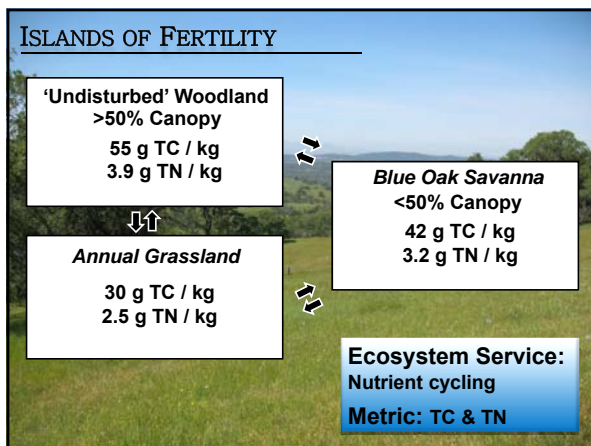
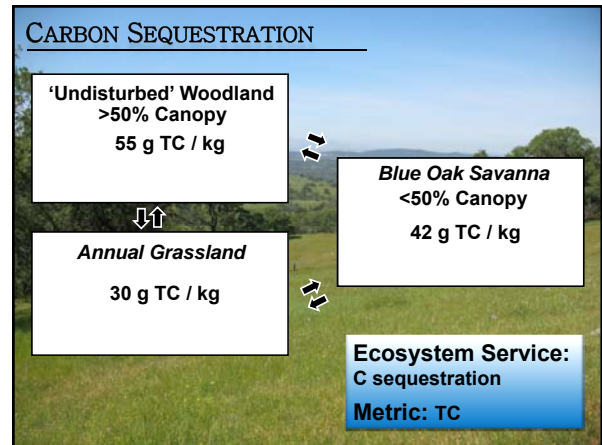
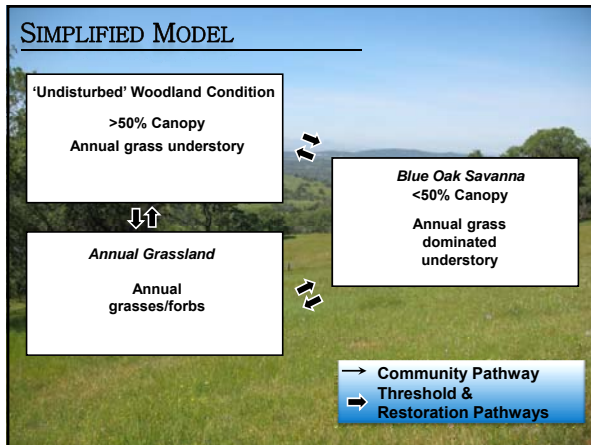
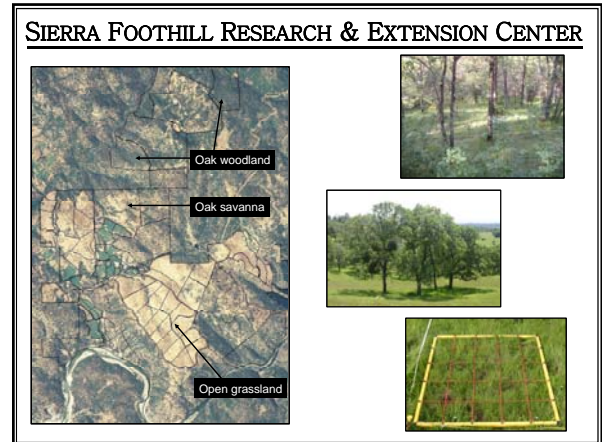
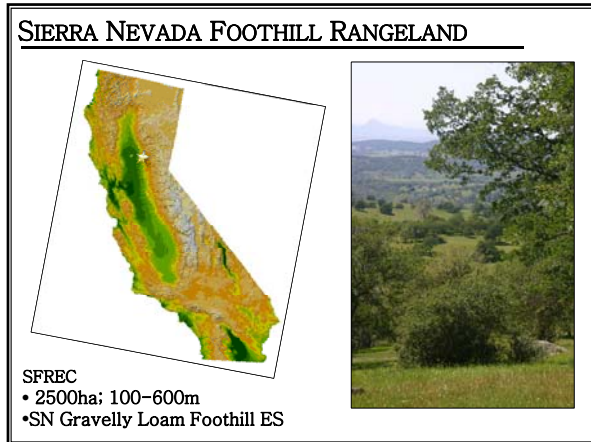


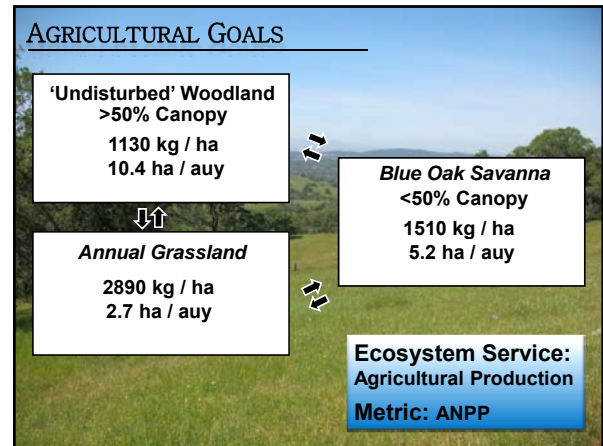
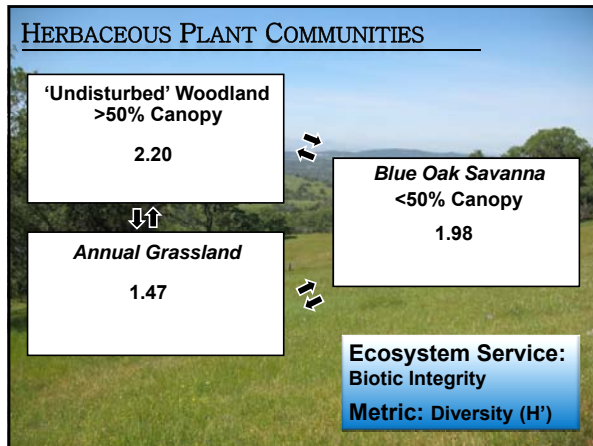
MANAGING FOR MULTIPLE OUTCOMES (not just one, or one at a time)



State & Transition Models

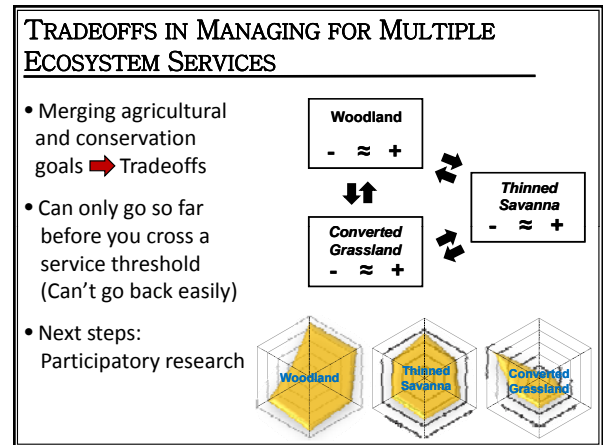






MERGING AGRICULTURAL & CONSERVATION GOALS

Metric	Oak Woodland	Grassland
Total N	3.6 g/kg	2.5 g/kg
Total C	48 g/kg	30 g/kg
Infiltration	95 cm/hr	20 cm/hr
Diversity	2.10	1.47
Forage production	1300 kg/ha	2900 kg/ha



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