APPENDIX J: Literature Review

21.1.1.1: Evaluate how the amount (i.e., "patch size"), configuration, and composition of GrSG habitat affect (1) sage-grouse behavior (e.g., movement and dispersal); (2) species distribution; (3) productivity; (4) population dynamics; and (5) population sustainability. Map and analyze landscape metrics (e.g., edge density, fragmentation, heterogeneity, fractal dimension), using the most reliable and current GIS data and examine the spatial and temporal correlation with sage-grouse population dynamics. Evaluate the potential for dispersal of individuals into currently unoccupied suitable habitat.

Implementation (Citations)	Effectiveness
a) Thompson, T.R. 2012. Dispersal ecology of greater sage-grouse in northwestern Colorado; evidence from demographic and genetic data. Ph.D. Dissertation, University of Idaho, Moscow, Idaho, USA.	a) It is too early to tell. This research was only recently completed. It will assist in the management of sage-grouse management zones 1, 5, and 3A. This research was central in understanding species dispersal and habitat configuration in management zones.
b) Rice, M.B., A.D. Apa, M.L. Phillips, J.H. Gammonley, B.B. Petch and K. Eichhoff. In Press. Analysis of regional species distribution models based on radio-telemetry datasets from multiple small-scale studies. Journal of Wildlife Management XX:XXX-XXX.	b) Was used in the development of priority habitat map and to refine species distribution in Colorado.
c) Apa, A.D. 2010. Seasonal habitat use, movements, genetics, and vital rates in the Parachute/Piceance/Roan population of greater sage-grouse. Colorado Parks and Wildlife Final Report. Fort Collins, Colorado, USA.	c) Data assisted in the development of the structural and disturbance guidelines in the CCP.
d) Hausleitner, D. 2003. Population dynamics, habitat use and movements of greater sage-grouse in Moffat County, Colorado. M.S. Thesis. University of Idaho, Moscow, Idaho, USA.	d) Assisted in the disturbance buffers, demographic data for the population viability analyses, and structural habitat guidelines in the CCP.
e) Rossi, L., A.D. Apa, and M.B. Rice. 2010. Greater sage-grouse seasonal habitat use and demographics in North Park. Colorado Parks and Wildlife 2010 Progress Report. Fort Collins, Colorado, USA.	e) Too soon to assess.
f) Rossi, L., A.D. Apa, and M.B. Rice. 2011. Greater	

sage-grouse seasonal habitat use and demographics in North Park. Colorado Parks and Wildlife 2011 Progress Report. Fort Collins, Colorado, USA.	f) See "e"
g) Graham, L. and C. McConnell. 2003. Radio-collared greater sage-grouse summary report; southern Routt and northern Eagle Counties, Colorado. Colorado Division of Wildlife, Steamboat Springs, Colorado, USA.	g) Assisted in the development of disturbance buffers and structural habitat guidelines of the CCP.
h) Graham, L. and C. McConnell. 2004. Radio-collared greater sage-grouse summary report; southern Routt and northern Eagle Counties, Colorado. Colorado Division of Wildlife, Steamboat Springs, Colorado, USA.	See "g"