## **Causal Factor Analysis Process and Results**

Interdisciplinary teams with Oregon Department of Fish and Wildlife (ODFW) and U.S. Fish and Wildlife Service (FWS) representation conducted the analyses. ODFW re-convened Local Implementation Teams composed of ODFW, Soil and Water Conservation District(s), local government, and private landowners. BLM invited tribal governments to participate in hard trigger analyses and in most soft trigger analyses. Additional outreach occurred to livestock permittees. Public meetings were held for the Baker and Brothers-Wagontire PACs.

Common and wide-spread causes identified below include fire, invasive annual grasses, degraded native understory vegetation, and fence collision risk. Factors with a possibly significant role are human infrastructure (mostly roads and power lines), improper livestock grazing (based on last Land Health Evaluation) and re-occurring drought. While the amount of infrastructure within a PAC may not have changed appreciably in the years leading up to the decline, predator populations may have expanded due to subsidies associated with power lines and roads. The degree to which West Nile virus has caused a population to decline or prevent an increase during favorable environmental conditions is unclear. Finally, Baker PAC is physically isolated from other priority habitat in Oregon and Idaho. The extent of genetic isolation is unknown, but telemetry studies suggest very little movement in or out of this PAC.

Possible Causes or Factors	Baker	Beatys	Cow Lakes	Trout Creeks	Dry Valley- Jack Mtn	Warners	Picture Rock	Brothers- N. Wagontire
Isolated/small size	X						X	X
Agriculture Conversion	X							
Conifer encroachment					X	X	X	X
Energy Development								X
Infrastructure	X		Local			X		X
Free-roaming equids					X			
Sagebrush Removal (historic)			Local					
Fire	Local		X	X	X	X	X	X
Weeds/annual grasses	X		X	X	X	X	X	X
Mining								Local
Livestock grazing	Unclear		Unclear	Unclear	Unclear	Unclear		Unclear
Recreation	Local					X	X	Unclear
Predator populations	X		Unclear			Localized		X

Possible Causes or Factors	Baker	Beatys	Cow Lakes	Trout Creeks	Dry Valley- Jack Mtn	Warners	Picture Rock	Brothers- N. Wagontire
Native understory condition	X		X	X				
Drought	X				X	X	X	X
West Nile Virus	Unclear		Local					Unclear
Habitat fragmentation	X		X					
Fence/wire collisions	X		Local			X	X	
Hunting disturbance								X
Crested wheatgrass seedings	X		X			X	X	
Sage-grouse translocations						X		
Research activities						X		
Weather impacting lek attendance		X						