

## 11. Hunting

<b>ISSUE 11.1</b>	There is a perception that GrSG populations cannot sustain sport hunting, or that sport hunting is inappropriate.				
<b>OBJECTIVE 11.1.1</b>	Influence the perception about the status of GrSG populations by providing accurate information about GrSG populations, their management, and the sustainability of sport hunting.				
<b>Reference Number</b>	<b>Conservation Strategy</b>	<b>Responsible Parties</b>	<b>Timeline</b>	<b>Implementation</b>	<b>Effectiveness</b>
11.1.1.1	Inventory all existing education and awareness materials regarding GrSG population status and management (e.g., brochures, posters). <b>[See Information, Communication, and Education Strategies 12.2.1.1 and 12.2.1.2]</b>	CPW	2009		
11.1.1.2	Conduct initial and annual reviews of information and all materials regarding GrSG. Review for accuracy and information gaps, and produce new materials if necessary. <b>[See Information, Communication, and Education Strategy 12.2.1.1]</b>	CPW	2009		
11.1.1.3	Develop an integrated communication strategy about upland bird sport hunting to inform and educate the non-hunting public about sport hunting. <b>[See Information, Communication, and Education Strategies 12.2.1.1 and 12.2.1.3]</b>	CPW	2009	<b>CPW:</b> CPW has presented information regarding the effect and sustainability of GrSG harvest to the Parks and Wildlife Commission on several occasions. Hunters and non-hunters alike are present at those public meetings.	<b>CPW:</b> The 2010 USFWS listing decision regarding GrSG is specific that continued sport harvest of GrSG is well regulated by the states and is not believed to constitute a threat to the long-term viability of the species. This finding has also been articulated in a 2012 letter from USFWS to the states.  <b>See Appendix H: Hunting Letter from USFWS</b>
11.1.1.4	Encourage and coordinate with LWGs to initiate articles in local newspapers and electronic media about their activities and successes with GrSG. <b>[See Information, Communication, and Education Strategy 12.3.2.1]</b>	CPW	2009		
<b>ISSUE 11.2</b>	There is a lack of rigorous research on the harvest rate at which sport hunting of GrSG becomes additive and could result in population declines.				
<b>OBJECTIVE 11.2.1</b>	Foster and support the research and the collection of data to gain knowledge about additive and compensatory mortality thresholds and sport harvest in GrSG.				
<b>Reference Number</b>	<b>Conservation Strategy</b>	<b>Responsible Parties</b>	<b>Timeline</b>	<b>Implementation</b>	<b>Effectiveness</b>
11.2.1.1	Initiate experimental field research designed to specifically address appropriate and sustainable harvest levels for GrSG (the harvest level at which mortality due to hunting becomes additive and causes populations to decline). Collaborate with other western states that hunt GrSG. <b>[See Research Strategy 21.6.1.1]</b>	CPW	Begin 2009, Continue 5 - 10 years		

Reference Number	Conservation Strategy	Responsible Parties	Timeline	Implementation	Effectiveness
<b>ISSUE 11.3</b>	There is concern regarding the quality of GrSG hunter and harvest information.				
<b>OBJECTIVE 11.3.1</b>	Foster and support the collection accurate information on hunters and GrSG harvest.				
Reference Number	Conservation Strategy	Responsible Parties	Timeline	Implementation	Effectiveness
11.3.1.1	Identify and implement more effective techniques to collect GrSG hunter statistics.	CPW	2009	<b>CPW:</b> CPW has implemented sampling strategies to improve the precision of GrSG hunting statistics through the Hunter Information Program (HIP), including specific online survey questions pertaining to the hunting of GrSG. CPW has considered implementation of a GrSG-specific hunting permit, but has not determined the need to do so to date.	
11.3.1.2	Evaluate the efficacy of implementing a required free permit, a sage-grouse stamp, a limited sage-grouse license, and/or an improved phone survey for GrSG hunters.	CPW	2009		
11.3.1.3	Using local communities and LWGs, provide educational materials to ensure that hunters accurately identify sage-grouse in the field. <b>[See also Information, Communication, and Education Strategy 12.3.1.1]</b>	LWG's	2008	<b>CPW:</b> Wildlife identification is a part of standard hunter education courses. Field law enforcement efforts have not identified significant issues with misidentification of GrSG. CPW has not implemented this strategy with any LWG. <b>PPR, MWR, and NESR</b> are not open to hunting.	
11.3.1.4	Evaluate, and if needed, improve the wing receipt (wing barrel) program and assess its accuracy for reporting GrSG harvest statistics.	CPW	2009	<b>CPW:</b> CPW continues to collect GrSG and other grouse wings in wing barrels during hunting seasons to gain harvest data and population demographic data. Wing barrel location is reviewed periodically to obtain the best possible sample of harvested birds. GrSG harvest is low enough in most locations that insufficient wings are collected for effective application of statistical techniques.	
11.3.1.5	Educate hunters about the importance of wing receipt data and harvest reports in GrSG management. <b>[See Information, Communication, and Education Strategy 12.3.1.1]</b>	CPW	Annually beginning in 2008		
<b>ISSUE 11.4</b>	There is concern regarding the relationship between the GrSG hunting public and landowners.				
<b>OBJECTIVE 11.4.1</b>	Foster and support a strong relationship between the GrSG hunting public and landowners.				
Reference Number	Conservation Strategy	Responsible Parties	Timeline	Implementation	Effectiveness

Reference Number	Conservation Strategy	Responsible Parties	Timeline	Implementation	Effectiveness
11.4.1.1	Encourage GrSG hunters to participate in LWG and statewide plan implementation.	CPW, CWF, LWGs	Ongoing	<b>CPW:</b> GrSG LWG meetings are open to the public. GrSG hunters have not generally participated in LWG-sponsored meetings/events in any of the LWG areas to great extent. However, sportsman's funds, applied by CPW, are used towards GrSG conservation.	
11.4.1.2	Contact hunting groups and organizations (e.g., sportsmen's councils) to encourage participation in sage-grouse conservation. <b>[See Information, Communication, and Education Strategy 12.2.2.1]</b>	CPW	2010	<b>CPW:</b> Several sportsman's organizations (e.g., Quail Unlimited, Pheasants Forever) have funded GrSG conservation efforts in portions of the range.	
<b>ISSUE 11.5</b>	There is a concern that the CDOW's system for annually setting GrSG hunting regulations (e.g., season length, bag limits, open/closed areas) cannot adapt and respond quickly enough to potential changes in GrSG populations.				
<b>OBJECTIVE 11.5.1</b>	Develop a system for adjusting season lengths, bag limits, and areas of closure or re-opening that is rigorous, predictable, and responsive to changes in sage-grouse populations.				
Reference Number	Conservation Strategy	Responsible Parties	Timeline	Implementation	Effectiveness
11.5.1.1	Develop a biologically-based adaptive GrSG statewide harvest management system that responds to the current LWG trigger systems to close or open areas to GrSG hunting.	CPW, LWGs	2010	<b>CPW:</b> Completed. <b>General</b> - CPW reviews the hunting season in each open hunting area following the completion of lek counts each spring. The Parks and Wildlife Commission makes final decisions on open/closed units and bag limits each July, based on whether local GrSG populations are meeting the triggers contained in the LWG conservation plans. Triggers are contained in the <b>NP and NWCO</b> Local Conservation Plans and have been used to modify bag limits, season length, open or closed units since 1998 in NWCO and 2001 in NP. <b>PPR, MWR, and NESR</b> have been closed to GrSG harvest for many years.	<b>CPW:</b> The 2010 USFWS listing decision regarding GrSG is specific that continued sport harvest of GrSG is well regulated by the states and is not believed to constitute a threat to the long-term viability of the species. This finding has also been articulated in a 2012 letter from USFWS to the states.
11.5.1.2	Implement an intensive monitoring system of GrSG population and harvest to refine the adaptive harvest model periodically, to affect season length and bag limit.	CPW, LWGs	2010	<b>CPW: General</b> - GrSG hunting decisions are based on 3-year running averages of lek counts. If lek counts do not occur in a hunted population, no hunting occurs in that population. <b>NWCO</b> - Per the LWG conservation plan, each hunting unit is open only where $\geq 100$ male GrSG are counted on leks in the unit. <b>NP</b> - season length and bag limit are reduced when lek counts for the basin as a whole fall below 850 males, with a lower threshold for closing the season outright. <b>PPR, MWR, and NESR</b> have been closed to GrSG harvest for many years.	

Reference Number	Conservation Strategy	Responsible Parties	Timeline	Implementation	Effectiveness
11.5.1.3	Create a procedure for rapid-response adjustments in GrSG hunting season to address potential risks in GrSG populations (e.g., late-season discovery of WNV in population).	CPW	2009	<b>CPW: General</b> - The Parks and Wildlife Commission establishes small game hunting seasons, including GrSG, for three years at a time. However, the Commission annually reviews lek data prior to making final hunting season decisions (season length, bag limit, open/closed) each July, prior to approving the final regulations for each year's hunting season. Late breaking population effects from a West Nile Virus outbreak or other cause of mortality can also be addressed at that time.	
11.5.1.4	Consider reducing the length of the sage-grouse falconry season to eliminate overlap with the GrSG strutting season (i.e., March).	CPW	By 2012	<b>CPW:</b> A reduction in the GrSG falconry season has been considered, but CPW has decided not to implement a change at this time. Harvest from falconry season is very low and is not believed to constitute a significant cause of mortality.	