Summary of Actions That Have Been Recommended to Recover Greater Sage-grouse (Applicable to Alberta) - for consideration by the Sage-grouse Partnership at its September 25, 2013 meeting

Source	Priorit y	Conservation Action	Threat/Issue Addressed	Barriers to Success	Expected Outcome	Key Partners	Cos t	Othe r
		Policy or Legal						
SGP		South Saskatchewan River Basin Plan-Wild Horse Plains Conservation Area Policy	Agricultural Conversion, Energy, Infrastructure, Urbanization, Recreation; Long-term Conservation					
SGP		Onefour Research Farm Strategy	Agricultural Conversion, Energy, Infrastructure, Urbanization, Recreation; Long-term Conservation					
RISCT, SGP, SRP		Regulatory tools, including tools for landowners, e.g. prohibition on new industrial development; conversion of native habitats; recreation access controls	Agricultural Conversion, Energy, Infrastructure, Urbanization, Recreation; Long-term Conservation					
SRP		Identify contradictory policies impacting species at risk habitat in SOD, and modify these policies to align with habitat needs of species at risk.	All Issues/threats					
SGP		Outcome-based Ecological Goods and Services Policy/Recognition of Importance of Ranching to Grassland and Species at Risk Conservation	Agricultural Conversion, Energy, Infrastructure, Urbanization, Recreation; Long-term Conservation					
RISCT, SGP		Conservation easements	Agricultural Conversion, Energy, Infrastructure, Urbanization, Recreation; Long-term Conservation					
SGP, SGS		Provincial or Federal Legislated Protection (e.g. National Wildlife Areas, Heritage Rangelands, Designated Land Use Zones)	Agricultural Conversion, Energy, Infrastructure, Urbanization, Recreation; Long-term Conservation					
SGS		Legal designation of all identified Critical Habitat	Agricultural Conversion, Energy, Infrastructure, Urbanization, Recreation; Long-term Conservation					
SGS, SGP, SGRS, SGRP		Prohibition on any new development (roads, transmission lines, well sites, wind energy structures, buildings, fences) in all Critical Habitat and restrictions/moratoria on industrial development within 15 km zone of influence around leks	Energy, Infrastructure; Low Reproductive Success					
SGS		Prohibition on motorized activity in Critical Habitat (note that exceptions for certain management activities are needed)	Motorized Access; Low Reproductive Success					
SGS, SGRP		Continued prohibition on hunting of Greater Sage-grouse	Recreation; Low Reproductive Success					
SGS		Prohibition on falconry in Greater Sage-Grouse range	Recreation; Low Reproductive Success					
SGS, SGRP		No tourism activities in Critical Habitat until recovery is complete	Recreation; Low Reproductive Success					
SGS, SGP		Coordinating mechanism (for governments, landowners, industry, ENGOs, researchers)	All Issues/threats					
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SGRS, SGRP,SRP		Educational materials/strategy	All Issues/threats					

RISCT= Range-wide Interagency Sage-grouse Conservation Team, USA SGP = Sage-grouse Partnership, Canada SGS = Sage-grouse Summit

SGRP = Sage-grouse Recovery Plan, Alberta SGRS = Sage-grouse Recovery Strategy, Canada SRP = Draft Action Plan for Multiple Species in Southwestern Saskatchewan

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Source	Priority	Conservation Action	Threat/Issue Addressed	Barriers to Success	Expected Outcome	Key Partners	Cost	Other
		Re	search	•				
RISCT, SGP, SRP		Mapping of Structure	Infrastructure					
RISCT		Research on annual grasses	Annual Exotic Grasses					
SGRP, SGP, SGRS, SRP		Predation Issues (including Common Raven as emerging issue)	Predation; Low Reproductive Success					
SGRP, SGS, SGRS, SRP		Funding of targeted research including annual surveys and monitoring identified in recovery/plans/strategies	Knowledge Gaps; Low Reproductive Success					
SGS		Assessment of monitoring of Critical Habitat since 2009	All Issues/threats					
SGRS, SGP		Assess impacts of research and avoid detrimental activities	Low Reproductive Success					
SGS		Data sharing (e.g. structure on landscape, oil and gas leases etc.)	Infrastructure					1
SGRP		Contribution of water impoundments to the availability of critical forage for chicks	Infrastructure; Low Reproductive Success					
SGRP; SRP		Connectivity of habitat between AB, SK and core sage grouse populations in other jurisdictions to prioritize areas for conservation or restoration	Reduced Genetic Diversity; Small Population size					
SGRP; SRP		Assess response of sage grouse to habitat restoration and reclamation efforts	All issues					
SGRP		Evaluate effectiveness of translocation program	Low Reproductive Success; Low Recruitment					
SGRP		Evaluate the effectiveness of Conservation and Development zone approach as a tool for managing industrial development on public lands	Infrastructure; Low Reproductive Success					
SGRP		Evaluate viability of carbon offset programs	All issues/Threats					1
SRP		Determine the effectiveness of current beneficial management practices related to grazing management as it affects species at risk, and develop new BMPs if necessary.	Alterations to natural grazing and fire regimes; Invasion of exotic plants; New Roads; High-intensity prolonged grazing					
SRP		Test and evaluate new technologies for noise mitigation	Industrial Activities; Traffic Noise					
SRP		Test and evaluate ways of minimizing the effects of vertical structures, in part by researching density and height thresholds at which populations are affected for various types of vertical structures.	Infrastructure					
SRP		Determine effective methods to promote recovery actions to stakeholders, and remove barriers to their participation in recovery actions, so that stakeholders are increasingly engaged in recovery actions for species at risk.	All Issues/Threats					

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		On-the Ground Action	-					
SGP, SGS, SGRS, SRP		Structure removal (staged approach), especially in Critical Habitat but also in surrounding landscape, including hawk nesting poles, abandoned buildings	Infrastructure; Low Reproductive Success					
SGRP, SGS, SGP		Identify roads for decommissioning (primarily oil and gas)	Infrastructure; Low Reproductive Success					
SGS, SGRP		Timing restrictions on industrial activity within 15 km of active leks and in Critical Habitat	Energy; Low Reproductive Success					
SGS		Remote telemetry of wells	Energy; Low Reproductive Success					
RISCT, SRP		Fire suppression (including reduction of fire hazard through vegetation control)	Wildfire; Sagebrush Elimination; Low Reproductive Success					
RISCT		Annual grass containment, e.g. downy brome is spreading into the Milk River area	Annual Exotic Grasses; Low Reproductive Success					
SRP		Exotic Species Management	Invasion of exotic species					
RISCT, SGS, SGP, SGRS, SGRP, SRP		Sustainable grazing management (e.g. 75% Range Health Score or 25-40% utilization rates and avoidance of concentrated winter grazing/supplemental winter feeding in Critical Habitat; deferred grazing; avoidance of salt, minerals, fences within 0.8 km of leks); need mosaic of good cover and patches of bare ground; improved hiding cover (structure) and improved late brood rearing habitat(forbs)	Agricultural Conversion; Grazing Management; Low Reproductive Success					
SGP, SGRP		Ranch Plans for Greater-sage Grouse Success	Agricultural Conversion; Grazing Management; Infrastructure					
SGP, SGS, SGRS, SGRP, SRP		Restoration of non-native annual cover to perennial native cover, especially in Critical Habitat but also restoring functionality in former range	Annual Exotic Grasses; Wildfire ; Low Reproductive Success					
SGP, SRP		Development of silver sagebrush seed for restoration work; planting after fire	Annual Exotic Grasses; Wildfire; Low Reproductive Success					
SGP, SGRS, SGRP		Predator Control (including direct control as well as removal of features/structures that facilitate predator roosting, denning, or nesting success)	Predation; Low Reproductive Success					
SGP, SGRS, SGRP		Vehicle and Foot Access Control (e.g. using tools developed for landowners)	Recreation; Low Reproductive Success					
SGS, SGP, SGRP		Translocation (once habitat is secure)	Extirpation; Low Reproductive Success					
SGP, SRP		Captive Rearing	Extirpation; Low Reproductive Success					
SGP		Fence-marking	Infastructure; Low Reproductive Success					
SGRP		Strategic removal of water impoundments	Infastructure; Low Reproductive Success					
SRP		Develop and implement a Disease Management Plan that assesses risks posed by different diseases (E.G. West Nile Virus), sets priorities for disease management activities and evaluates the efficacy of different disease management approaches.	Disease; Low Reproductive Success					

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