

Appendix P. Research, survey, and monitoring needs that would enhance conservation efforts for key aquatic habitats and associated SGCN in New Mexico. Detailed research, survey, and monitoring needs are located in the Assessments and Strategies for Species of Greatest Conservation Need and Key Habitats Chapter.

Aquatic Habitats	
LR	- Large Reservoir
MCSS	- Marsh/ Cienega/ Spring/ Seep
1/2OS	- 1 st /2 nd Order Stream
3/4OS	- 3 rd /4 th Order Stream
5OS	- 5 th Order Stream
T	- Tanks
GIW	- Geographically Isolated Wetlands
MMC	- Man-Made Catchments

Research, Survey, and Monitoring Needs	<i>Perennial</i>						<i>Ephemeral</i>	
	LR	MCSS	1/2OS	3/4OS	5OS	T	GIW	MMC
Investigate SGCN presence, abundance and population status, distribution, movement, and life history requirements	X	X	X	X	X	X	X	X
Determine SGCN habitat requirements	X	X	X	X	X	X	X	X
Determine environmental conditions or thresholds that preclude populations of SGCN	X	X	X	X	X	X	X	X
Investigate hydrologic relationships and their effects on SGCN to provide a better understanding of the physicochemical and hydrologic processes that will allow for sustainable watershed conservation and management practices	X	X	X	X	X	X	X	X
Investigate the extent to which land use activities (e.g., grazing, human development, road-building, and oil and gas development, etc...) fragment and alter habitats in relation to size, edge effect, and use by SGCN		X	X	X	X			
Determine the extent to which invasive and non-native species may alter aquatic community structure and preclude populations of SGCN and identify methods to minimize impacts from non-native species	X		X	X		X	X	
Investigate the relationships between non-native piscivores and SGCN	X		X	X				
Quantify the effects of recreational use of aquatic habitats on the persistence of habitats and SGCN	X		X	X				

Appendix P Cont.

Research, Survey, and Monitoring Needs	Perennial						Ephemeral	
	LR	MCSS	1/2OS	3/4OS	5OS	T	GIW	MMC
Determine and monitor habitat condition and water quality		X			X		X	
Develop spatial data designating the location, area and quality of aquatic habitats to provide the foundation for monitoring impacts and facilitating risk assessment for SGCN that occupy this habitat type		X	X			X	X	X
Investigate methods to reduce the spread of pathogens through aquatic environments			X	X		X		
Identify habitats suitable for restoration and SGCN restoration			X	X		X		X
Evaluate the relative efficacy of mechanical versus piscicide removal of non-native species for Gila trout restoration			X	X				
Investigate the extent to which wildfire and associated ash flow has diminished habitat quality			X					
Studies are needed to quantify and compare the diversity of perennial and ephemeral habitats relative to each other and to other ecosystems						X	X	X