FORESTRY, FIRE & STATE LANDS
REQUEST FOR PROPOSALS
Cover Sheet

Project Title	Mercury and methylmercury sources, transfer pathways, hotspots, and toxicity to biota at the Great Salt Lake and the novel use of stable mercury isotopic ratios.
Lead Project Sponsor	University of Utah and Westminster College
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Project Description / Abstract	The proposed research represents a collaboration between researchers at the University of Utah and Westminster College that will leverage research synergies and realize substantial cost savings by working together on a series of highly interrelated projects to better understand some of the most critical unknowns regarding mercury's cycling and bioaccumulation in the Great Salt Lake ecosystem. This project will build upon recent research by the two groups involved and use substantial matching funds to achieve the following goals. (1) Utilize stable mercury isotopic ratios as a new and novel means to track mercury sources and transfers throughout the aquatic and terrestrial ecosystems of the GSL, and help elucidate the role of the upper brine layer versus the deep brine layer as the source of mercury in wildlife, (2) Determine which prey items and transfer pathways are involved in mercury exposure to song birds at the GSL and evaluate if this mercury exposure results in decreased reproductive success or other toxic effects, (3) Examine a sheetflow wetland complex near Kays Creek that was recently identified as a major methylmercury hot spot to determine the reason for this anomaly and evaluate if it is a major source of methylmercury to the lake, and (4) Determine if the invasive plant phragmities facilitates the production and export of methylmercury compared to native wetland vegetation.

	Amount Requested	Matching Funds	Total Project Cost
Project Funding	$ 71,720	$ 38,500	$110,220