DEVELOPING TOOLS TO SECURE WATER FOR SPRINGS IN THE SKY ISLANDS

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The Sky Island Region of the southwestern United States and northern Mexico boasts 2,000 mapped springs in the U.S. portion alone. Thanks to investments from the applied science program of the Desert Landscape Conservation Cooperative and Reclamation WaterSMART grants, regional knowledge about springs has increased dramatically in the last 6 years, new collaborative efforts to conserve and restore spring have emerged, data is readily available on individual springs to inform management and new guidance has been developed on surveying and restoring springs. The growing knowledge of spring ecosystems and interest in their management has led to concern from managers (federal, state, local and private) that these systems are offered limited policy protection disproportionate to their ecological significance. Additionally, there is insufficient knowledge on how hydrological, spatial configuration, and jurisdictional overlays intersect with corresponding standards and policy tools to influence conservation and restoration priorities among a selection springs and stream resources available for management action. To address these concerns, we are working to develop a toolbox of enabling conditions for springs and streams to help managers prioritize conservation and restoration locations, and synthesizing springs monitoring approaches to develop guidance on aligning monitoring questions with possible approaches. The tool is being developed in partnership with agency personnel, land managers, tribal members, and interested stakeholders who are stewarding springs. Outcomes of tool development include 1) an analysis of existing springs sites and watersheds and 2) an exploratory multi-criteria tool for managers to evaluate landscape-scale and site-specific attributes. The springs tool has four focal areas for characterizing spring systems and the

surrounding landscape: biophysical attributes; management context; cultural values of the spring and surrounding landscape; and resilience to potential climate change impacts.