



## **RAGWA: Rangeland Automated Geospatial Watershed Assessment Tool**

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Soil and water conservation is the keystone to sustainable livestock grazing and maintenance of native species on our western rangelands. Good rangeland management requires the ability to assess the potential impacts of climate and management actions on runoff and erosion at both hillslope and watershed scales. The premise of the R.AGWA project is that the practice of rangeland management can be improved if rangeland managers have Decision Support Tools (DSTs) that are easy-to-use, built on range management concepts, use readily available data, and designed for rangeland hydrologic and erosion processes. The project is using the Automated Geospatial Watershed Assessment tool (AGWA) as the foundation of a DST for rangeland watershed management. AGWA is GIS interface for data organization, parameterization, integration, and visualization for models to support watershed assessments developed jointly by the USDA-ARS, U.S. EPA, University of Arizona, and University of Wyoming. The project is integrating several ongoing projects to transform the current operational AGWA tool into a comprehensive Rangeland Automated Geospatial Watershed Assessment Tool (RAGWA). Specially, the project is: Incorporating the Rangeland Hydrology and Erosion Model (RHEM) into the AGWA interface for hillslope assessments; Developing parameterization methods that represent the complexity of rangeland sites for different models; Developing tools that will allow users to represent and analysis the impacts common rangeland management practices on runoff and erosion; and Developing tools that will allow users to economically assess the costs of soil and water conservation practices. For more information visit the website: [www.tucson.ars.ag.gov/agwa/](http://www.tucson.ars.ag.gov/agwa/).

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