



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2002CO6B

Title: Evaluating Strategies to Mitigate Waterlogging and Salinization in Colorado's Lower Arkansas River Valley, Phase 3

Project Type: Research

Focus Categories: Water Quality, Groundwater, Agriculture

Keywords: Salinity, Saline soils, Drainage, Water quality, Groundwater quality, Groundwater modeling, Surface water modeling, Decisionmaking

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Non-Federal Matching Funds: \$34,513

Congressional District: 4th

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Abstract

Regional-scale models, calibrated and tested using extensive field data, will be refined and applied to complete an evaluation of ways to successfully solve serious waterlogging and salinity problems across the irrigated landscape of the Lower Arkansas Valley in Colorado. Irrigation-stream-aquifer interactions predicted by the regional models will be integrated into the development of a river basin-scale model. This model will be designed to explore options for river operation that will facilitate implementation of the best regional-scale strategies while complying with water rights and Arkansas River Compact requirements. The aim is to provide reliable computational tools to promote better

management of the land and water resources to support enhancement of the river environment and revitalization of agricultural communities.