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Climate Responsive Water Management: The Motivation for Improving Ag-to-Urban Transfers: What's at Stake?

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Abstract:

This poster attempts to illustrate some of the changes made by displacement of pre-European development conditions by the “hybrid ecology” created by radical modifications of the hydrograph, and the increased distribution of water in the landscape by more than a century of irrigation. The social issues in water transfers are illustrated by a few county-level maps of growth in population and poverty, showing the ill-being of agriculture-dependent counties in Colorado, before the current “fiscal crisis”. Illustrations of the Drought centered on 2002 are shown to provide images of conditions when irrigation is suspended, and an illustration of severe erosion following years after irrigation termination is added.

Hand-outs to accompany the poster describe the series of projects in this area of research and studies of the place and its institutions; information on decision support for irrigators and others on climate, drought, and sources for best available information; additional legal forms of water transfer needed; suggested principles for water transfer institution design; the crisis and opportunity for irrigation ditches; and progress reports on inquiries into farm-level feasibility of improved transfers, biological issues in water transfers, and socio-economic issues in improved water transfers. Emphasis is placed on the potential for facilitating long-term sustainability of irrigation operations through long-term financial stability from water-sharing sales or contracts, using fallowing and partial transfer of water, interruptible supply, and spot markets in “pay-as-you-go” transfers to meet urban demand and demands for drought recovery and aquifer storage while maintaining agricultural capacity and farming feasibility.

Reference is also made to the website: <www.colorado.edu/ibs/eb/wiener/>, where several presentations are posted on topics included here and on recommendations and also a variety of other material is posted, along with URLs for presentations posted elsewhere. “Speaker’s notes” are used on many of the Powerpoint™ 2003 slides, to enable addition of references and some additional commentary.

Impact Statement:

The potential for better outcomes will be asserted. References to inter-net posted materials and other sources will be included.

Category: Conservation and Resource Management

Type of Presentation: Poster Presentation