**Economics of Agricultural Water Sharing Arrangements in the Upper Colorado Basin**

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The scope of our project is to design an internship model during which the student can utilize their skills to undertake dynamic, detailed and interesting work that reflects the changing nature of CSU’s statewide engagement mission, availing ourselves of video and social media platforms that have not been effectively utilized by the Western Colorado Research Center units. Our goal is for the student to complete their internship having gained experience in field research on a water resources project of statewide importance, while also taking on a supporting role for extension outreach through various forms of social media. Additional opportunities will allow the student to participate in planting, irrigation management and data collection at the CSU Western Colorado Campus entities devoted to agricultural research. The objectives will be structured around using enterprise budget approaches to better understand economics of water conservation, including compensation for water sharing program participants and program costs. as well as promoting greater visibility of our research projects and engagement efforts through a variety of website and social media platforms by documenting the daily ongoings of our various projects. Additional objectives will include sensitivity analysis to determine optimal price points of agricultural inputs, commodity sales or water lease values, that may influence a producer decision to participate in these arrangements. A final objective will be to evaluate these budgets at multiples scales, ranging from individual fields to communities.

An overall understanding of the project on which the student will partner can be gleaned from Snider, A. (2020). The Rancher Trying to Solve the West’s Water Crisis. Politico. Dec. 4, 2020. This internship will support a project focused on evaluating the consumptive use rates of irrigated fields, where one of the largest curtailments of water application has been undertaken in Colorado for the purpose of sharing water in the Upper Colorado Basin. The need for water sharing is in response to an irreversible trend in reduced water supplies, drought and competing pressures among domestic, industrial and agricultural water users. A better understanding of economic factors is needed for ag producers to evaluate how compensation for reduced water use fits into their operational planning. The Colorado Basin partners on the project have expressed the economic considerations for demand management need deeper clarification to structure programs that utilize market-based approaches to supports productive agriculture and consider the full range of costs and benefits for water sharing arrangement participants and their communities.

There are travel funds available for the project (use of personal vehicle with reimbursable mileage), but student housing is not available at the CSU Western Colorado campus. An arrangement does exist with Colorado Mesa University, for example, and funding may be available to help offset the cost of housing.