



Arkansas Basin Roundtable

PLANNING OUR
WATER FUTURE

Colorado Water Conservation Board
Attn: Mr. Craig Godbout
Program Manager, Water Supply Planning Section
1580 Logan Street, Suite 200
Denver CO 80203

August 18, 2014

Re: WSRA Grant Recommendation-Tailwater Return Flow Study on Fort Lyon Canal

Dear Mr. Godbout;

The Arkansas Basin Roundtable, on behalf of the Lower Arkansas Valley Water Conservancy District and Fort Lyon Rule 10 Association has approved the attached grant request for \$175,137 (\$30,000 in Basin Funds and \$145,137 in Statewide funds).

The Tailwater Study will enable a better understanding of how tailwater return flows actually accrue to the Arkansas River as compared to the tailwater assumption contained in the Irrigation System Analysis Model (ISAM). ISAM was developed to provide a standard methodology for performing evaluations as to whether irrigation system improvements result in a reduction or change in the timing or location of historical seepage losses or return flows in violation of Article IV-D of the Arkansas River Compact and to implement the "Compact Rules Governing Improvements to Surface Water Irrigation Systems in the Arkansas River Basin in Colorado" (the "Irrigation Improvements Rules"). Specifically, Applicants will identify 5-8 representative and geographically-distributed farms along the Fort Lyon Canal. Equipment will be installed and Applicants will conduct measuring and monitoring for two or more irrigation seasons to gather data on tailwater return flows. The data will then be analyzed to determine **actual** tailwater return flows. These results will be validated to confirm the applicability of the results on a canal-wide basis. The methodologies and approaches used will be designed to provide a basis for a potential refinement to ISAM's tailwater assumption.

The Tailwater Study would positively enhance the current system of allocating water within Colorado through ensuring maximum utilization of available water supplies, encouraging water savings through improved irrigation efficiency, and reducing potential over-deliveries of Colorado's water resources to Kansas under the Irrigation Improvements Rules. The study would enhance and improve evaluations of current water use practices and would inform water resource management decisions. In addition to agricultural purposes, the Tailwater Return Flow Study on the Fort Lyon Canal (the "Tailwater Study") will also address ongoing Arkansas River Compact compliance issues and has the potential to benefit M& I users.

If you have any further questions regarding the Roundtable support, please don't hesitate to call me.

Regards,

E.L. Konarski, Chr. Arkansas Basin Roundtable



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