

Yampa White Green Basins Roundtable

February 2, 2016

Re: Hayden, Colorado Lysimeter Operations Project

Mr. Godbout,

At the January 13, 2016 meeting of the Yampa White Green Basin Roundtable, the membership voted unanimously to support the aforementioned project.

This project will continue efforts to improve lysimeter operations in the Yampa Basin and to determine better crop coefficients that can be applied to weather-based calculations of grass-reference ET (evapotranspiration – water evaporated directly from soil plus transpiration from the leaves of growing plants). In late 2010, the Yampa-White Roundtable provided support for instrumentation, operation and maintenance for an integrated data collection system consisting of an automated weather station specifically designed for estimating evapotranspiration and bucket lysimeters designed to directly measure the amount of water lost from the soil due to evapotranspiration. The weather station was purchased and installed in the fall of 2011 in a high grass meadow area on the Carpenter Ranch owned by the Nature Conservancy near Hayden, CO. The purpose of the weather station is to collect the meteorological data necessary for the calculation of ET via the ASCE Standardized Penman-Monteith method (ASCE, 2005).

In addition to the weather station, four bucket lysimeter plots were installed in the spring of 2012. Two of the plots were seeded with grass-reference vegetation and two were seeded with vegetation representative of the surrounding irrigated meadow. These plots were irrigated and weighed on a regular basis throughout each season of operation. Four years of data have been collected on the plots however for various reasons only two of the four years produced data of much value, which is simply not enough to properly compute the crop coefficient that is needed. As such the study would benefit highly from additional years of overlapping lysimeter operations with weather station data collection.

Please do not hesitate to contact me with any questions.

Sincerely,

Jackie Brown

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