



# Colorado River District

*Protecting Western Colorado Water Since 1937*

## MEMORANDUM

APRIL 7, 2017

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**TO:** BOARD OF DIRECTORS  
ERIC KUHN, GENERAL MANAGER  
PETER FLEMING, ESQ.

**FROM:** JOHN CURRIER, P.E., CHIEF ENGINEER  
HUNTER CAUSEY, P.E.

**SUBJECT:** IRRIGATION EFFICIENCY IMPROVEMENTS

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### **No Board Action Required – for discussion only**

The irrigated lands and irrigation practices within the River District are as diverse as its hydrology, geology and topography. Irrigation efficiency improvement projects are similarly diverse. Piping a leaky, maintenance intensive ditch within the Grand Valley Irrigation Company system will have different impacts, potentially positive, potentially negative, than a similar project in the upper Yampa drainage, or on Rogers Mesa near Hotchkiss, or anywhere else. Conversion from flood or furrow irrigation to sprinklers within Uncompahgre Water Users Association will have different impacts, again potentially positive, potentially negative, than a similar conversion along Ohio Creek north of Gunnison, or Fortification Creek north of Craig, or West Divide Creek south of Silt, or anywhere else.

Interests outside of true agricultural producers (defined here as those who derive their sole livelihood from ag.) may have a myriad of different motives for pursuing ag irrigation efficiency projects; water quality, stream flow enhancement, drought contingency planning, you name it. Yet, generally the root reason for a true agricultural producer to undertake such a project is the same all across the district; sustained ag viability. Ultimately projects are done to improve productivity, decrease labor time and cost, and improve profitability.

The underlying truth is that there is no “one size fits all” when it comes to irrigation efficiency projects, or the results of those projects, potentially positive, potentially negative. Because of the diversity in both project type and site specific circumstances, project impacts need to be evaluated on a case by case basis.

Over years numerous evaluations, studies and water rights change cases have delved into the hydrologic impacts associated with changing irrigation practices or dry-up of agricultural land. These encompass the east, south, and west slopes of Colorado as well as the entire western United States. Without reinventing the wheel, staff believes it would be instructive to summarize the range, nature, and magnitude of impacts to help guide the Board as you grapple with the River District’s role in ag efficiency projects. We envision doing this, potentially over a series of Board meetings, starting in July.