

STATE OF COLORADO

Colorado Water Conservation Board

Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Ted Kowalski, Chief & Michelle Garrison, Interstate,
Federal & Water Information Section
Todd Doherty, Water Supply Planning Section

DATE: May 3, 2013

SUBJECT: **Agenda Item 24, May 14-15, 2013 Board Meeting
Interstate, Federal & Water Information Section –
Colorado River Water Bank Presentation**

John W. Hickenlooper
Governor

Mike King
DNR Executive Director

Jennifer L. Gimbel
CWCB Director

Background

In 2011, the CWCB approved \$180,000 in funding to study the feasibility of a water bank in the Colorado River basin in Colorado. Other funding partners included the Colorado River Water Conservation District (CRWCD), Southwestern Water Conservation District (SWCD), The Nature Conservancy (TNC), and Front Range Water Providers (collectively “The Coalition”). The partners have cooperatively explored how a water bank could help Colorado prevent, address, and respond to a deficit at Lee Ferry and the corresponding possibility of curtailments of water uses in Colorado in order to meet the Upper Division States’ obligations under the Colorado River Compact (hereinafter, “curtailments”) and the effects on Colorado water users.

There are several ways a water bank could operate. For this study the partners chose to examine how pre-compact water rights could be used to allow post-compact water uses to continue when those uses may otherwise be subject to curtailment. Specifically, certain lands that are irrigated by pre-compact water rights could be temporarily fallowed or deficit-irrigated, and these water rights could be used to offset depletions associated with post-compact water uses.

Phase 1 consisted of a feasibility study to estimate potential supplies and demands for the bank. Data on water use, irrigated acreage, crop types, diversions, water rights and hydrology for Water Divisions 4-7 were analyzed. Key findings included:

- some crop types are better suited to temporary fallowing or deficit irrigation than others;
- a significant amount of consumptive use from pre-compact water rights is used for growing hay and grass at high elevations;
- the risk of a Lee Ferry deficit in the near term is low, and therefore with existing demand and observed hydrology there is no immediate need for a water bank;

- increases in demand combined with decreases in hydrology would create a need for a water bank; and
- the amount of supply available to a water bank would depend heavily on the participation of irrigators.

In Phase 2a the partners chose eight irrigation systems of varying size, location, elevation, crop types, water supply, ownership and operational structure. A reconnaissance level evaluation of the eight systems was performed to better understand and describe the challenges and opportunities of different types of irrigation systems for participation in a water bank.

At the conclusion of Phase 2a the partners agreed that further study of deficit irrigation and fallowing for different crop types was necessary. The partners propose a Phase 2b that will focus on studying deficit irrigation and fallowing, including field research. The funding request for Phase 2b will be covered under agenda item 30f.

Other elements of a potential water bank not yet studied in detail include economic and environmental evaluations, and bank operation and function.

Dan Birch of the CRWCD, Project Manager for this study, will provide a presentation to the Board on the study.

Staff Recommendation

This is an informational item. Agenda item 30f will address the request to the CWCB for additional funding for Phase 2b under the Alternative Agricultural Water Transfer Methods grant program.