



MEMORANDUM
MAY 18, 2018

TO: BOARD OF DIRECTORS

FROM: DAVE “DK” KANZER, P.E.

SUBJECT: ACQUISITION OF EQUIPMENT FOR CLOUD SEEDING PROGRAM (CCMRB)

ACTION: Request Board action to authorize the General Manager on behalf of the Colorado River Water District Enterprise Fund to enter into a purchase order (PO) for a not to exceed amount of \$82,000, with the Colorado Water Conservation Board (CWCB) and to enter into related sales orders / contracts with the Idaho Power Corporation (IPC) for approximately \$77,500 to acquire upgraded cloud seeding equipment for the Central Colorado Mountain River Basin Weather Modification Program.

All contracting documents are to be subject to review and approval by the General Manager and General Counsel and relevant agreements will be subject to a minimum 3% management fee and/or partial cost recovery of River District staff time, as deemed appropriate.

APPLICABLE STRATEGIC INITIATIVE(S):

- 3. C. The River District will engage in and support water supply planning efforts, local and regional, which include adapting to climate change impacts.*
- 4. C. The River District will continue to study mechanisms, such as a ...water supply augmentation to address the risk of overdevelopment.*
- 7. C. The River District will look for opportunities where its efforts are needed as a catalyst to help in-District interests plan for and meet their water needs in a manner that is consistent with the District’s compact contingency planning goals and objectives.*
- 7.D. The River District will actively pursue funding sources and provide financial assistance to be used for the refurbishment and modernization of the aging water supply infrastructure within the District in order to help preserve and improve existing supplies and operations.*

Background Information

Since late 2016, the River District has actively managed the Central Colorado Mountain River Basin Weather Modification Program (hereafter referred to as the “CCMRB Program”) on behalf of 7 principal cost share partners, including the Front Range Water Council (FRWC), several ski areas, and the CWCB (with funding from Lower Colorado River Basin contributors). River District staff cooperatively manages CCMRB planning and implementation efforts, collects funds pursuant to a multi-partner cost-share agreement and disburses payments to contractors that perform cloud-seeding activities throughout the central portion of the Colorado River headwater area.

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To improve the effectiveness of the CCMRB, an effort is underway to upgrade and replace, as appropriate, some of the 25, manually-operated, cloud seeding generators with remotely-operated generators, consistent with the goals and objectives of the CCMRB. Additional funding has become available from the CWCB that, when combined with available CCMRB funding, would be able to support this equipment upgrade effort. Upon Board approval, requested in this memo, additional funding of up to \$82,000 from the CWCB would enable the River District to acquire two state-of-the-art generators that could then be deployed up wind of targeted snowsheds in the CCMRB project area.

The PO would cover the full purchase cost of the two remotely-controlled cloud seeding generators, taking advantage of available state fiscal year-end funding. Additional funding to support the siting and installation of these generators is anticipated to be available after July 1, 2018 through a separate, future CWCB PO. Accounting staff analysis indicates that there is sufficient capacity to manage these state funds and to ensure compliance with TABOR revenue rules. A cautionary note, however, is that our remaining "TABOR" capacity to accept state grants will be reduced to approximately \$100,000.00 (approximately 21% of our 2018 capacity) for the remainder of the 2018 calendar year.

The cost of operation and maintenance of the new generators is to be included in the currently authorized and funded CCMRB program. Although the River District will initially own the equipment, it will be sited on private lands under legal agreement and will be operated by Western Weather Consultants under contract. It is expected that the cost of operation of the new equipment should be equal or reduced in comparison to the manual generators due to increased relative efficiency and effectiveness.

It is recommended that the River District is the appropriate entity to purchase this equipment and to operate the CCMRB as the local water resource manager in the basin, involved in drought management programs, rather than the CWCB, based remotely outside of the basin. This is consistent with the other two active cloud seeding programs (*i.e.*, Gunnison Basin and Southwest program).

Currently, River District staff is the sole managing entity of the CCMRB; the previous contracted project manager, Maria Pastore, has moved on to work for Colorado Springs Utilities. As such, it is anticipated that some additional River District staff resources may be needed to manage the technical, legal and accounting requirements of the CCMRB. Current estimates suggest that such demands to not only to acquire the machines but to incorporate and operate and maintain the machines as part of the CCMRB should be manageable. Preliminary staff analysis suggests that during the primary activity months of August to May (including pre-season planning, operational oversight, fiscal management and post-season reporting) should not exceed 200 hours of staff time and resources, with nominal staff time needed during the 'off-season'. River District management is currently analyzing the comparative cost effectiveness and human resource allocation of retaining another contractor to assume Ms. Pastore's prior role.

It is important to note that much of the CWCB funding comes from contributions from Lower Basin states that are interested in augmenting Colorado River snowpack for the purpose of increasing water availability with hopes that it increases Lake Powell inflows. Such augmentation

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is part of the Colorado River basin “Drought Contingency Plan” or DCP. Although the intent of the this element of the DCP is to support increasing water storage levels at Lake Powell, under existing laws and agreements, any additional yield produced under this augmentation approach is considered ‘system water’ which has no specific owner and thus, it would be available for diversion and/or appropriation.