TO: Colorado Water Conservation Board Members  
FROM: Alexander Funk, Agricultural Water Resources Specialist  
DATE: September 16th, 2020  
Request: Dolores Project Pumping Plant Replacement

Staff Recommendation: Staff recommends that the CWCB Board approve the proposed Dolores Project Pumping Plant Replacement MOA reallocation request.

Background: In 2011, the Upper Colorado River Division States (Colorado, Wyoming, Utah, and New Mexico), the United States Bureau of Reclamation (Reclamation), the United States Department of Energy Western Area Power Administration, and the Colorado River Energy Distributors Association (CREDA) signed a Memorandum of Agreement (MOA) authorizing the use of the Upper Colorado River Basin Fund (Basin Fund) to further the purposes of the 1956 Colorado River Storage Project (CRSP) Act (Public Law 485). The MOA created a mechanism for the Upper Division States to access excess hydropower revenues for operations, maintenance, and replacement costs (OM&R) for congressionally authorized CRSP Participating Projects (herein “Participating Projects”) and to reduce the impact on the CRSP firm power rate by eliminating the collection of power revenues beyond that amount needed to repay the costs of the existing projects through Fiscal Year (FY) 2025. The Colorado Water Conservation Board (CWCB) represents Colorado in implementing the MOA and is responsible for ongoing project evaluation and prioritization.

At the March 2019 Board Meeting, the Board approved the CRSP MOA Project Budget Adjustment Guidance (attached). This document outlines the process for CWCB staff to apply when considering project budget adjustment requests moving forward. When a Participating Project has an approved project budget that requires additional CRSP MOA funds, Reclamation must obtain Colorado's approval. The CWCB Board must approve any budget adjustment over $250,000 due to the potential for impacting other approved MOA projects and Colorado's unobligated MOA funds.

Discussion: The Dolores Project, located in the Dolores and San Juan River Basins in southwestern Colorado, uses water from the Dolores River for irrigation, municipal and industrial use, recreation, fish and wildlife, and hydroelectric power production. The Dolores Project provides water to the Dove Creek area, central Montezuma Valley, and the Towaoc area on the Ute Mountain Ute Indian Reservation. The Bureau of Reclamation contracts with the Dolores Water Conservancy District (DWCD) to operate and maintain all project facilities.
In 2017, the Bureau of Reclamation approved $520,000 in MOA funding ($460,000 in direct contract pump rebuild costs and 13% Reclamation non-contract costs of approximately $60,000) for pumping plant replacement projects critical to project operations to meet variable flow real-time pressurized irrigation deliveries. This multi-year project would refurbish the fixed speed pumps, extending the life of the pumping plants.

The original project scope anticipated rebuild costs similar to previously completed projects. After ten pumps were rebuilt, repair costs have increased, and additional funds are needed to complete the rebuild of the final six fixed speed pumps. Reclamation and DWCD, based on previous construction costs and anticipated non-contract costs, estimate that an additional $317,000 is needed to complete the pump rebuild project. As such, Reclamation, on behalf of DWCD, is requesting that CWCB approve a reallocation request that would transfer $317,000 funds from the Dolores Project Pumping Traveling Screen Replacement project, which remains an active MOA project with a sufficient balance.

CWCB staff, upon receiving Reclamation’s written reallocation request, reviewed the proposal using the CRSP MOA Project Budget Adjustment Guidance process. The Dolores Project pump rebuild project remains the priority for the DWCD and is critical to the overall delivery and beneficial use of project water. Delays would disrupt the replacement of critical infrastructure and potentially disrupt deliveries to project water users. DWCD did discuss other alternatives, such as buying new replacement pumps, but this would present substantially higher costs. Rebuilding the pumps at this time will also be more cost-effective than discontinuing the existing contract to repair the remaining pumps. Since all requested funds will move from existing Dolores MOA projects, this reallocation will have little to no impact on previously approved MOA projects outside the Dolores project system or Colorado’s remaining MOA allocation.

**Attachments:** CRSP MOA Project Budget Adjustment Guidance, Dolores Project Pumping Plant Replacement Reallocation Request
Dolores Project Pumping Plant Replacements: Fixed Speed Vertical Turbine Pump Rebuilds

PROPOSED PROJECT JUSTIFICATION

Item/Activity: Dolores Water Conservancy District: Modification to previously approved Dolores Project Pumping Plant Replacement projects. This modification request allows for funding for the completion of rebuild of 6 of the original 16 multi-stage fixed speed vertical turbine pumps for the 5 Dolores Project pumping plants.

State: Colorado

Project Manager: Ed Warner, Western Colorado Area Manager

Federal Project or Program: Dolores Project, a CRSPA project

Legislative Authority: Colorado River Basin Project Act of September 30, 1968 (82 Stat. 896)

Origination Date: Refer to prior proposals submitted over several proposal cycles. This request is for a modification to previously approved project in January 11, 2017. This modification is within the scope of the original statement of work contained in that request. This request asks to shift $317,000 of funds from the Dolores Project Pumping Plant Traveling Screen Replacement: Equipment Acquisition originally submitted June 10, 2014 for $1,476,000 in order to complete rebuilding of the remaining 6 fixed speed pumps.

Revision Date: August 25, 2020

Estimated Cost: Funding was originally requested in the amount of $520,000. $460,000 in direct contractor pump rebuild costs and 13% Reclamation non-Contract costs of approximately $60,000. DWCD has provided labor and crane service to remove and re-install all pumps plus produced the technical specifications for $23,444 of costs to date by DWCD.

The original project anticipated rebuild costs similar to the previously repaired variable speed pumps. As with any sight unseen project we did anticipate some potential more extensive and expensive repairs and bid pricing for different levels of repair including new impellers should they be worn beyond appropriate levels for repair. After 2 seasons and 10 of 16 re-built, repairs have trended on the high end and show the need for additional funds to complete the last 2 plants with 6 fixed speed pumps. Based on this experience Robert Stump of Reclamation provided the following accounting and estimates to complete the project.

Funding Approved: $520,000.00
Contract Expenditures to date: $(458,044.89)
Non-contract Expenditures to date: $(71,202.32) As of Q3 FY2020
Total unexpended to date: $(9,247.21)
Dove Creek Pumps (3 pumps) $(111,723.00) Extensive repair level
Fairview Pumps (3 pumps) $(115,758.00) Extensive repair level
Estimated impeller replacement change order: $(50,000.00)
Estimated non-contract costs to complete: $(30,000.00)
Total estimated deficit to complete: $(316,728.21)
Therefore, we request that $317,000 be transferred to complete this project that would otherwise be delayed causing unknown future problems directly translating into District costs passed on to rate paying farmers.

**Project Type:** This is a maintenance item project related to the larger Dolores Project pumping plant replacements as described in the original project justification.

**Description of Item:** This turbine pump rehabilitation work will extend the life cycle of the two remaining pumping plants affecting all the pressurized water deliveries to Dolores Project irrigated lands. This project continues the orderly, staged replacement process of critical Dolores Project infrastructure described in the original justification.

**Construction/Installation Schedule:** The rebuilding of pumps must take place between October 1 and May 1 outside of the irrigation delivery season when all pumps are in use. To date we have finished two winter seasons of work that has re-built 10 pumps as of May 2020. One more winter starting in mid-October will complete the project by April 2021. DWCD crews will coordinate the removal, rebuilds and replacement around the off-season.

**Condition:** Refurbishment of the pumps thus far has shown that the pumps require and extensive level of repair and often new impellers are required. Rehabilitation will be required to extend the service life with adequate performance.

**Cost Effectiveness:** Rebuilding the remaining 6 pumps at this time is more cost effective than either procuring new pumps or discontinuing the existing contract to repair the remaining pumps.

**Benefits:** Scheduled timely off season rehabilitation provides the best solution to prevent disruptions to irrigation deliveries.

**Alternatives Considered:** Reliable pump performance is critical to continued consistent Dolores Project operations. Therefore options are limited. If run to destruction, repairs would be substantially more expensive and could cause significant irrigator disruption. If run too long, rebuilding becomes less effective and more expensive. The only viable alternative requires buying new replacement pumps, which would be substantially more expensive and require longer lead time to delivery.

**Recommended Alternative:** Reclamation has gone through the solicitation and selected a qualified contractor. At this point not completing the project would add time and additional administrative costs with no increased benefits and raise unknown risks of pump failure that would interrupt irrigation delivery.

**Impacts if Schedule Delayed:** Delays would disrupt the orderly replacement (rebuild) of critical infrastructure. Delays at this time would simply increase the administrative overhead costs to deliver the project and potential disruption costs to the District and irrigators.
CRSP MOA Project Budget Adjustment Guidance
CWCB’s Process for Addressing MOA Project Budget Increases
Colorado Water Conservation Board Approved on March 21, 2019

Introduction
Colorado has 39 approved MOA projects that were approved between 2012 and 2016. These projects were often submitted and approved with budgets that are now out of date or failed to account for Reclamation’s non-contract and administrative costs to be charged to the projects. Eight years into implementation, materials are more costly than originally estimated. Additionally, Reclamation’s design and technical services have proved more expensive than private sector alternatives and subject to lengthy delays, further increasing costs. These factors—along with project-specific nuances—have resulted in many MOA projects exceeding their budgets and requiring more funds than originally anticipated. This has placed considerable pressure on Colorado’s overall MOA allocation and the ability to implement priority projects.

This document outlines the process for CWCB staff to apply when considering project budget adjustment requests going forward.

Guidelines for MOA Project Budget Adjustments
When a Participating Project has an approved project budget that requires additional CRSP MOA funds, Reclamation must obtain Colorado’s approval. The steps set forth below provide a sequence for CWCB staff to follow when considering project budget adjustments.

(1) CWCB staff will first confirm that the project remains a priority by consulting Colorado’s MOA project prioritization list, a document that is updated annually and in accordance with the criteria adopted by the CWCB Board in March 2015 and as amended in March 2019.

(2) If the project is determined by CWCB staff to still be a priority to be funded using MOA funds, CWCB will work with Reclamation and the appropriate Project Beneficiaries to determine if the project design or scope can be revised in order to remain within the budget originally approved by Reclamation.

(3) If the project design and scope have been revised and there is still a need for a budget adjustment and/or if Reclamation’s budget adjustment request to the originally approved budget is determined by CWCB staff to be necessary, reasonable and within the scope of the project as submitted by CWCB and approved by Reclamation, CWCB
staff will then assess whether the budget adjustment request could be met by reallocating the Participating Project’s unobligated funds from that Participating Project’s other pending or active, approved MOA projects. CWCB staff will consult Participating Project representatives and Project Beneficiaries as needed regarding any potential reallocation of unobligated funds as needed. If unobligated funds exist within the subject Participating Project’s pending or active approved projects, CWCB staff may first look to redirect such unobligated funds from the pending or active projects to cover the requested budget adjustment. If the unobligated funds from pending or active approved projects within the subject Participating Project are insufficient to cover the entire requested budget adjustment, unobligated funds remaining from any completed but not yet closed projects within the subject Participating Project that have not yet been returned to the State of Colorado’s general MOA allocation will then be considered. If CWCB staff determines that unobligated funds from the completed but not yet closed project(s) are available, CWCB staff may elect to redirect those excess funds to cover the budget adjustment request.

(4) If CWCB has evaluated and/or taken all the actions identified above and determined Reclamation has acted in good faith to avoid or reduce the amount of the requested budget adjustment, and there still exists a reasonable and necessary request for all or some portion of said budget adjustment, CWCB will once again consult with Reclamation and the appropriate Project Beneficiaries to determine where project scope can be revised or other cost savings can be found and/or, identify alternate funding sources.

(5) If no alternate funding sources are identified and all of these steps have been taken, CWCB staff will evaluate the availability of Colorado’s general MOA allocation. If CWCB staff determines that there are sufficient unobligated funds from Colorado’s general MOA allocation for the requested budget adjustment and circumstances warrant accessing these funds, CWCB staff may elect to allocate those funds to the project.

(6) If all previous steps have been taken and are not sufficient to ensure successful completion of the project, CWCB staff will consult with Reclamation and Project Beneficiaries to discuss the possibility that work may need to cease until additional sources of funds are identified and secured.

At no time are funds for all approved projects to exceed Colorado’s entire MOA allocation.
CWCB staff will require that all budget adjustment requests are submitted in writing, via email and that no verbal or text requests for budget adjustments in any amount will be considered.

CWCB staff, based on the direction of the Board, has the discretion to render decisions for any budget adjustment requests that are less than $250,000.00. For those budget adjustment requests in excess of $250,000.00, approval must first be obtained from the CWCB Board. CWCB staff will require that all budget adjustment requests will be submitted by Reclamation no less than five days after Reclamation first learns of the potential need for any proposed budget adjustment. Budget reallocation requests greater than $250,000, requiring Board approval will require additional time for approval and must be made at least a month in advance of a regularly scheduled CWCB Board meeting.

In no case shall funds in excess of the originally approved amounts will be applied to projects until the necessary project review and approvals have been obtained.