



City Council Report

Date: November 15, 2021
To: City Council
Through: Marc Heirshberg, Deputy City Manager
From: Jake West, Water Resources Department Director
Subject: Approval of Agreement to Share Costs Associated with conducting a feasibility study to modify Bartlett Dam. (“Agreement”).

Purpose and Recommendation

This Agreement proposes to share costs for the United States Army Corps of Engineers and Department of Interior to conduct a feasibility study for modifying Bartlett Dam. The intent of the study will recommend potential for increasing the height of the dam and creating new conservation space in Bartlett Reservoir.

It is recommended that the City of Mesa Council approve the Agreement.

Background

This year the United States Department of Interior’s Bureau of Reclamation issued a draft Verde Reservoirs Sediment Mitigation Study Appraisal Report recommending that the Bureau seek authority to initiate a feasibility study. The study will address topics discussed in the Appraisal Study and determine the technical, environmental, economic, and financial feasibility of modifying Bartlett Dam.

The project to modify Bartlett Dam is being driven by sediment being deposited in Horseshoe Reservoir. A recent sediment survey found that Horseshoe Reservoir capacity had been reduced by 35 percent or 45,749 ac-ft of water. It is estimated that the reservoir loses around a 1,000 ac-ft of storage per year. In our arid desert environment, it is crucial that we maintain the storage capacity of our reservoirs. The investment by the partners will help find cost-effective solutions that restore lost water storage while also adding additional capacity for future use.

Discussion

This Agreement will provide a cost sharing mechanism to conduct a feasibility study. The term of this agreement is four (4) years. The initial annual contribution is \$100K to be considered a voting member of project’s steering committee (Parties that do not

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intend to vote can contribute \$30,000). It should be recognized that the Parties entering into the Agreement are not guaranteed to receive an allocation of the new conservation space based on their percentage of participation. Rather, the Steering Committee will develop methodology for assessing the water use needs of the participating parties. Any resulting additional water rights will ultimately be subject to the appropriation claims process with the Arizona Department of Water Resources as well as the appropriate determinations in the General Stream Adjudication.

The feasibility study will review two (2) options for modifying Bartlett Dam. These options are raising the dam 62 feet or 97 feet above the existing height (308.5 feet) of the structure. The new space will maintain the existing space for water rights in Bartlett and allow the entire Horseshoe Dam capacity to transfer into Bartlett Dam. In addition to restoring capacities, the modified Bartlett Dam will create new conservation space that can be used anywhere in Mesa. The water is not tied to Salt River Project Association lands.

Alternatives

The City of Mesa could decline to enter into the Agreement but then would forego the many benefits of this potential additional water supply.

Fiscal Impact

It is estimated that the feasibility study will cost \$10 million with half (or \$5 million) being paid by the non-federal parties. Mesa's share of these estimated costs is \$100,000 per year or a total of \$400,000 to be a voting member of the project's Steering Committee. Additional water supplies are becoming less available with unit costs over \$500 per acre-foot of water (325,851 gallons). Mesa staff have indicated that the City can support the beneficial use of around 14,000 acre-feet of water from this Project. This could cost over \$7 million annually on the open market with less guarantee on availability. The cost of surface water is considerably higher.

Coordinated With

The City Attorney's Office has reviewed the Agreement as to form and as to the City's authority to enter.