



**COLORADO**

**Colorado Water  
Conservation Board**

Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Matt Stearns, Project Manager  
John Hunyadi, DWR/Chief of Dam Safety

DATE: November 17-18, 2021 Board Meeting

ITEM: 8.b Non-Reimbursable Project Investment Applications  
(1) Reservoir Enlargement Assessment Project

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### Staff Recommendation

Staff recommends the Board allocate \$250,000 from the Construction Fund to conduct a Comprehensive Dam Safety Evaluations at existing high hazard dams across Colorado for the purpose of assessing opportunities for reservoir enlargement. This funding will be recommended for appropriation in the 2022 CWCB Projects Bill.

### Introduction/Background

The Division of Water Resources (DWR) - Dam Safety Branch sees an opportunity for multi-stakeholder benefit through this project. Previous CWCB NonReimbursable Investment funding has been utilized to pilot the proposed project and has already shown significant statewide benefits. Additional grant funds are being requested to utilize these tools on a prioritized list of high hazard dams that show a likely potential for enlargement of existing facilities. These studies will serve a dual function of defining potential enlargement quantities and identifying components of the structure that may need to be modified as part of a safe enlargement scenario. An equitable prioritization process will be utilized to select the projects in a maximum number of water divisions across the State, consistent with the goals of the Colorado Water Plan for increasing storage.

Colorado Dam Safety is statutorily responsible for determining the safe storage level for all reservoirs in the State of Colorado. Many of the 398 classified high hazard dams in Colorado are approaching 100 years of age as the population continues to increase below them. This project will further the goal identified in the Colorado Water Plan of examining the enlargement potential at existing reservoirs by identifying the most likely locations for successful enlargement projects while at the same time determining improvements required to ensure safe storage in these high hazard facilities.

Colorado Dam Safety has developed a consistent approach for completing comprehensive evaluations of dams, known as Comprehensive Dam Safety Evaluations (CDSE). This Project utilizes a CDSE risk-informed decision making process to identify dam failure modes for a given storage capacity. This information can then be used to determine improvements necessary to meet dam safety standards for the increased storage, and ultimately for the development of cost estimates of the enlargement. The CDSE approach provides for the use of risk-informed decision making in reservoir enlargement planning, spillway adequacy studies, and assessment of need for reservoir storage restrictions to ensure the protection of life and property.





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P R O J E C T D E T A I L S	
<i>Project Cost:</i>	\$10M
<i>NRI Funding Request:</i>	\$250,000
<i>Funding Source:</i>	Construction Fund
<i>Project Type:</i>	Technical Investigation
<i>Type of Grantee:</i>	Government

L O C A T I O N	
<i>Benefits:</i>	Statewide
<i>Water Source:</i>	Various
<i>Drainage Basin:</i>	All Basins

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