

2012 Major Project Accomplishment

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| Project Name: Crystal Lake Dam Rehabilitation | | | |
| State: | Colorado | CMFC or CMII funds: | \$335,262 |
| National Forest: | GMUG | Other funds: | \$ 0 |
| | | Total Project: | \$335,262 |

Project Purpose/Objectives:

Crystal Lake Dam was part of a recent land purchase. Built in 1935 its old outlet works had failed. The dam exhibited excessive seepage, rodent activity, and brush growth along the face of the dam and berm. The emergency spillway was not functional for this significant hazard dam. The north embankment is a popular trail access and is popular with fishermen and tourists. The objective of the project was to improve the safety of the dam for downstream public and private property and improve National Forest resources.



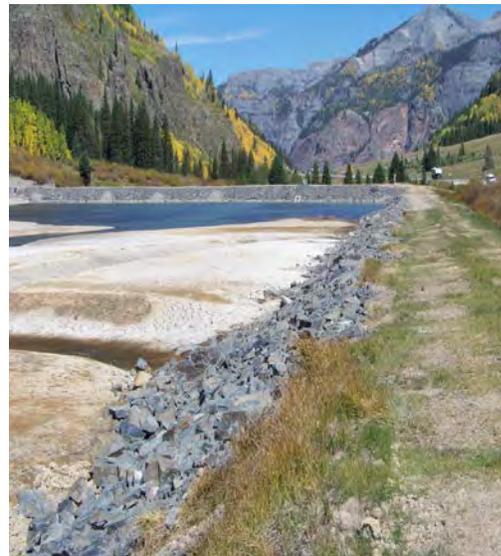
Crystal Lake Dam – The north and east embankment shows lack of clearing.

Work Performed:

Using an Interagency Agreement with the Bureau of Reclamation the Forest was able to fund the design and construction of the critical rehabilitation. Vegetation was cleared from the dam and berms were leveled and armored with rip-rap. A new 42” emergency spillway was installed to replace an inoperable 36” spillway. The old outlet was replaced with a new 18” outlet with a slide gate. A culvert under the entrance road to the dam was also replaced.

Expected Benefits:

The dam is now much safer than the original structure. It is designed to withstand a 500-year event. It has an operable outlet and emergency spillway. It has protection from wind erosion with placed riprap and the vegetation clearing allows seepage to be more visible to quantify and correct. The water rights can now be used for downstream use.



Crystal Lake Dam–Project complete.

Additional Information: Interagency Agreement with BOR.

Partners: US Bureau of Reclamation provided all project design and construction.