

## Upper Kapahi Dam Project History

Date	Activity
1910 - 1990	Dam originally constructed around 1910 and is raised over the years. No construction records exist.
December 1991	Upper Kapahi Dam reportedly overtopped during one of the largest storm events recorded on Konohiki Stream.
September 1997	First reported inspection of Upper Kapahi Dam.
June 2001	Upper Kapahi Dam inspected by Department of Land and Natural Resources (DLNR).
March 2006	Disaster relief funds allocated for dam work on Hawai'i after the Kaloko Dam failure on Kaua'i.
October 2006	Upper Kapahi Dam survives magnitude 3 earthquake with no observed damage.
August 2007	US Army Corps of Engineers completes a hydrology and a simulated dam break study. These studies determine that the spillway of the existing dam is insufficiently sized.
September 2008	Upper Kapahi Dam inspected by DLNR officials. Spillway deficiency is highlighted along with upstream and downstream slope concerns.
January 2010	Construction documents are developed to modify the dam to address safety concerns.
July 2011	Construction begins for improvements to Upper Kapahi Dam.
August 2011	Vegetation removal begins, which exposes areas of seepage and debris on the downstream slope. Water levels in the reservoir are lowered.
January 2012	A geophysical survey of the dam embankment revealed anomalies under the dam crest and downstream slope not consistent with a homogeneous dam construction. Poor fill practices and debris are confirmed with test trenches in the existing dam.
February 2012	Construction work on the Upper Kapahi improvements project is suspended. A study is conducted to identify alternatives for modifying or decommissioning the dam.
March 2012	Upper Kapahi Reservoir is completely drained.
September 2013	Alternatives selected for design include breaching the existing dam while maintaining Kainahola Road alignment and constructing a new small dam within the existing reservoir pool.
October 2013 – Present	Designs and permitting initiated for dam breach and new dam projects.

## Upper Kapahi Replacement Dam Development Process

Date	Milestone
October 2013	Final design for the new dam is initiated.
March 2014	Work begins on an Environmental Assessment of the replacement dam project
April 1, 2014	Early consultation meeting on replacement dam project
April 4, 2014	Comment period closes for comments on replacement dam project
April - June 2014	Advertisement and review of bids for new dam construction
May 2014	Draft Environmental Assessment noticed in the Environmental Notice
May 2014	Permit applications filed for major Federal and State permits
June 2014	Comment period closes on the Draft Environment Assessment
June 2014	Bid award for construction of replacement dam project
Summer 2014	Development of Final Environmental Assessment
2014	Permitting work continues (401, 404, NPDES + local permit requirements)
Early to mid-2015	Construction may begin after all required permitting obtained