

PROJECT DATA

Monsavu Hydropower Dam - Performance Review

**CLIENT**

Fiji Electricity Authority

PROJECT LOCATION

Suva & Central Viti Levu, Fiji

DATE OF PROJECT

April - September 2002

SERVICES PROVIDED

- Risk assessment
- Dambreak inundation mapping
- Dam safety emergency planning

Monasavu Hydropower Dam is an 85m high earth and rockfill dam which impounds water for hydro-electric power generation at the 80 MW Wailoa Power Station. It is owned and operated by the Fiji Electricity Authority (FEA).

A full risk assessment was performed based on ANCOLD guidelines, and included review of the existing hydrology, 1-D hydraulic dambreak modelling, 1:25,000 scale dambreak inundation mapping, consequence assessment, engineering assessment and development of f-N curves to assess societal risk. Recommendations were made for ways to reduce the societal risk associated with the dam.

A dam safety emergency plan (DSEP) was developed for Monasavu Dam, including the 1:25,000 scale dambreak inundation maps developed as part of the risk assessment. The DSEP covers all types of dam safety events or emergencies which could occur at Monasavu Dam under normal, flood or earthquake loading. The DSEP included detailed instructions for how to issue and revise the document, how to arrange and perform simulations and linkages with the Fiji Government's disaster response agencies. Recommendations were made for ways to increase the warning time of the population at population at risk downstream of the dam.

LEADERS IN CONSULTABILITY



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