



Clyde Power Station, New Zealand

The creation of the 60 m high Clyde Dam involved inundating the toes of 14 major landslides in the Cromwell Gorge section of the new reservoir. One landslide daylighted above the dam abutment and another overlooked the town of Cromwell further upstream. Concerns were raised about the possibility of sudden or significant movements leading to damage to the town or the surrounding communities.

Intensive investigations were led by Opus International Consultants Ltd to determine what hazard existed and change in stability that would occur following lake raising. Large-scale remedial works including surface protection works, buttressing and deep drainage from tunnels was undertaken. Extensive monitoring was set up to assess the efficacy of the remedial works and to provide early warning of any renewed activity.

Geoff Bryant acted as a Reporting Geologist for Opus, responsible for investigation of four landslide areas and 6 km of lake shore on left bank. Ongoing monitoring following lake fill.

Project Description

Project: Clyde Power Station, Lake Shore Stabilisation Works

Location: New Zealand

Client: NZ Electricity Cooperation

Total Project Value: US\$300,000,000

Start Date: January 1989

End Date: January 1993

Lead Company:

Associated Consultants: None

Key Features:

- Landslide assessment
- Groundwater
- Slope remedial works
- Instrumentation and monitoring