

# Te Ahi Tipua ki Tāhorakuri A130: establishing an economic development plan for whanau & hapū in degraded geothermal environments

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Geothermal systems hold strong economic, cultural and scientific significance in the Taupō Volcanic Zone. Since their arrival many iwi have used these systems for cooking, heating and health; thus linking these iwi with their geothermal taonga throughout time. One local iwi, Ngāti Tahu, have been occupying land within the Ohaki Geothermal Field and on the banks of the Waikato River since before the seven-waka arrived from Hawaiki. Their land has experienced significant adverse effects since the commissioning of the Ohaaki Power Station in the 1980's. Extraction of fluids at depth has seen the loss of water flow to geothermal surface features, and the land has suffered from a large amount of subsidence, which has resulted in the migration of the Waikato River and flooding of a large portion of the A130 land block.

Tāhorakuri A130 Ahu Whenua Trust want to reconnect their whanau and economy with their geothermal taonga, with a vision of an eco-papakainga to provide work and housing to their whanau which sustainably utilises the resources that their land provides. In collaboration with GNS Science, the Trust will develop a model for reviving their land which will consider and promote: mātauranga-a-hapū, particularly pertaining to pre-geothermal development in the early-to-mid nineteenth century; western science (geology, geophysics, geochemistry and groundwater); and hapū culture and economic aspirations.

This project develops a deeper understanding of the damage and surface, subsurface and deeper impacts on the land and taonga, and aims at creating an effective plan for developing the Trust's land which will protect, preserve, and possibly restore their wāhi tapu and taonga. Moreover, we expect that the model presents a suitable template for other iwi and geothermal fields.