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**TOTARA LOGS IN WHAKAPAPA GORGE  
SCENIC RESERVE**

REPORT ON SITE INSPECTION

by

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**TOTARA LOGS IN WHAKAPAPA GORGE SCENIC RESERVE  
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In response to Ngati Hikairo Marae Committee request through Tongariro District to remove three totara logs from the Reserve for the purpose of building a meeting house, I visited the site on 27 September, 1988, to gain an understanding of the potential impacts. The Reserve is a 200 ha block of Podocarp-hardwood forest lying between the Whakapapa River and farmland within the Tauwera West Block of Maori Development land. I could not inspect the whole of the fenced boundary adjacent to the farmland because sheep were lambing and I did not wish to disturb them. However, I found three fallen totara trees (and several fallen rimu trees) at the reported location near an old tram-line. In all likelihood there are other fallen trees in the Reserve.

The Reserve is in very good condition. The only logging evident was the removal of totara probably 40-50 years ago. A number of stumps were found, one with an adjacent abandoned pile of fence posts. The remains of a fence using totara posts occurs just inside the present boundary fence. This phase of disturbance accounts for the double zone of secondary vegetation around the farmside boundary.

Thus, apart from the rarity of standing mature totara, the forest is in its original condition with emergent podocarps (kahikatea, rimu, matai, totara -in order of dominance) with a second canopy of tawa, maire, hinau, tarata and rewarewa. An understorey of tree ferns is prominent, especially at sites of totara removal and on steeper slopes, and a wide variety of smaller trees and shrubs occur including scattered *Alseuosmia* (toropapa) . The ground cover is relatively open under the podocarps, but elsewhere is rich in ferns -*Asplenium*, *Blechnum*, *Todea* and *Hymenophyllum* and orchids. Vines and epiphytes are prominent. The forest presents a diverse, mature, healthy appearance of high aesthetic value. All forest species are regenerating.

The older (30-50 year) band of regenerating forest, resulting after the original logging of forest on the land development block, is a rich zone of young podocarps (especially kahikatea, rimu and miro), hardwoods, tree ferns and vines. This zone forms a dense buffer zone to the mature forest and contains a wide range of species -putaputaweta, tarata, hoheria, pate, *Melicope simplex* (tataka), coprosma species, rangiora etc. *Clematis* (puawananga) and *Rubus cissoides* (tataramea) are prominent vines.

To the outside of this zone is a band of young vegetation resulting after fencing around the land cleared for farming. It is largely introduced grass, thickets of blackberry and woody weeds including Buddleia, privet and barberry. There does not appear to be any intrusion of exotic species into the mature forest.

The fallen totara logs lie about 50 m from the edge of the Reserve. Machinery could be driven to the boundary and the logs or cut planks removed without difficulty.

## **Wildlife**

The forest appears to be excellent habitat, with a combination of old, mature and young trees, and with a diversity of forest margin hardwoods. Old standing trunks suggest homes for hole-loving animals such as bats. Birds observed were kotare, piwakawaka, komako, tui, kereru, riroriro (grey warbler) and putangitangi (paradise shelducks :parents plus 5 young). Minor possum browse on makomako was the only indication of wild animal impact. No domestic stock were seen in the Reserve.

## **Comment on Ngati Hikairo request**

The former Lands and Survey file on the Reserve (held by DOC, Waikato) records a request (1973) by local people to remove totara that had fallen across a road. Evidence from within the Reserve indicates that totara were felled as part of the adjacent land development, probably before the Ngati Hikairo gave the land to the Crown for a Reserve. I suspect that totara have been taken from the general area for centuries but that the logging and land clearance over the last 50 years indicated to the tangata whenua that a Reserve is needed to safeguard the last remaining primary forest. Such a gift would have expected an occasional return in a manner consistent with history. It is likely that had the gift not occurred, undisturbed forest would be absent from this area.

However, the ecological and cultural value of the Reserve is now indisputable. While I do not question the validity of the request for logs, I believe extreme care is needed during the extraction process. While I am not in a position to assess various logging methods I would suggest milling on site with hand removal of timber to the boundary. The protective buffer of secondary vegetation is extremely important in preventing entry of cold and wind, and weed species. Damage to this buffer should be minimised. The tree ferns within the forest are striking and care not to disturb these is needed. The pathway used to remove timber should be carefully chosen to ground disturbance. I am not in a position to assess the feasibility of helicopter removal although at the site it did not appear to be essential.

I would suggest that some effort be committed to transplant a few of the countless totara seedlings for replanting within the Reserve, along its weedy margin. I would also suggest that some of the relatively young totara (10-20 m) in bush patches within the developed farmland be treated as a future harvestable resource and provided with appropriate protection from stock.

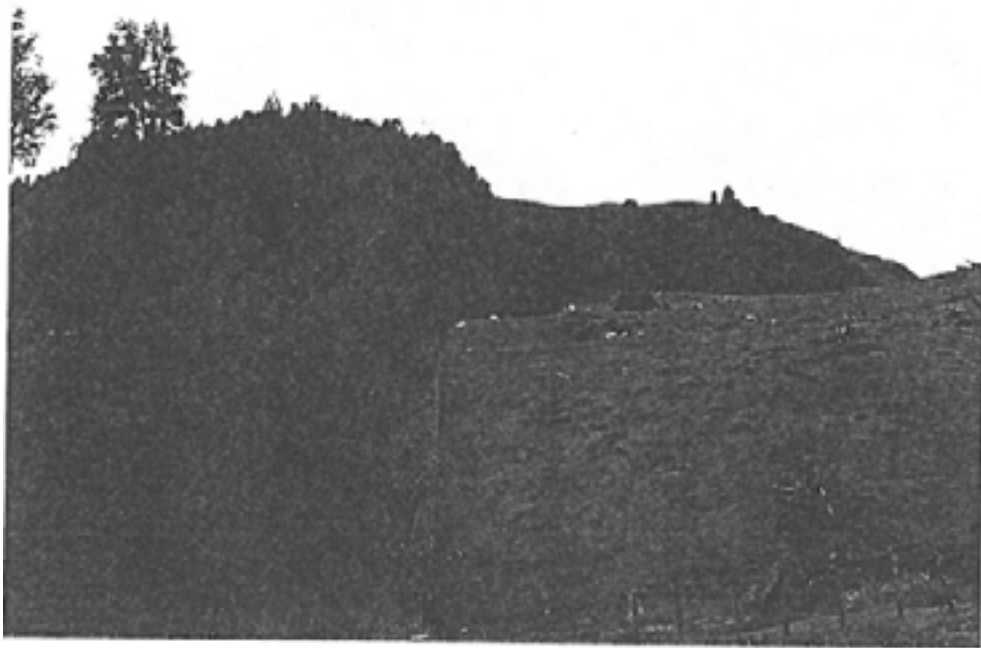
**Photos of Whakapapa Gorge Scenic Reserve.**



Boundary between reserve and farmland, showing primary podocarps, a band of secondary podocarps/hardwood regeneration, and a weed zone adjacent to the fence.

Primary forest trees - totara (centre) and kahikatea (right) - with a foreground buffer of regeneration, mostly putaputaweta and tree-ferns (ponga, wheki).





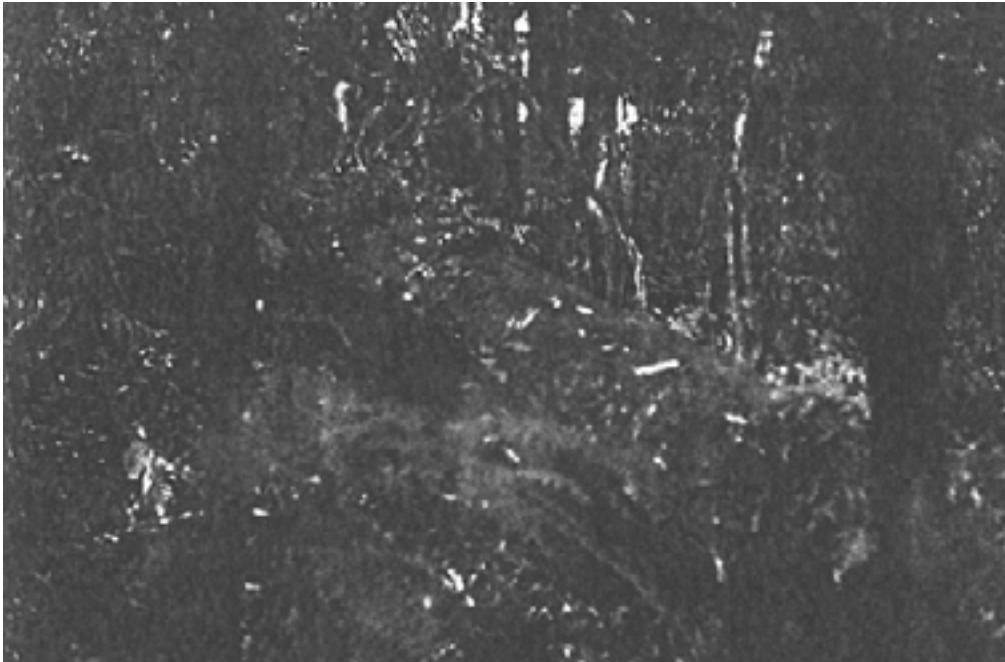
Dense border of blackberry adjacent to the boundary fence. An old tramline (not shown) traverses the reserve at the base of the distant hill.



Large standing totara tree, with associated tawa and an understory of treeferns.



Large rimu (left) with a totara stump (right) remaining after logging perhaps 50 years ago.



Fallen totara log approximately 1 x 10 m. Relatively easy to mill on-site with hand removal of timber to the reserve boundary.