OHAAKI

A POWER STATION ON MAORI LAND

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Acknowledgements

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Acknowledgment is also due to Electricorp for the photographs on pp. 84, 128, 152, 153 and 154 of the opening of the dining hall at Te Ohaaki Marae and the Ohaaki power station by the Governor General, Sir Paul Reeves on 31 October 1989. All other photographs were taken by Evelyn Stokes.

Tahumatua, the ancestral meeting house of Ngati Tahu at Te Ohaaki Marae

1. Introduction

This paper is about a geothermal power station called Ohaaki (see Appendix 1), constructed over the period 1982-1989 on Maori land close by Te Ohaaki Marae and the ancestral papakainga of Ngati Tahu. This is a personal account of the impact of this project on Ngati Tahu rather than a history of the construction of the power station. My initial involvement began early in 1977 when I was asked by the Power Development Division of the New Zealand Electricity Department (NZED) to comment on likely social and economic impacts of the proposed geothermal power station in their preparation of an Environmental Impact Report. In 1980 I was appointed by the Maori Land Court as one of the trustees of Te Ohaaki Marae and the lands affected by the power project. I held this position until I resigned in 1992. I was, therefore, party to all the negotiations with Crown representatives over the Maori lands involved and the development of Te Ohaaki Marae.

How I became so involved with the Ngati Tahu community is part of the story that will unfold in the following pages. In 1977 I was an outsider, with no ancestral ties or other connections with Ngati Tahu. I knew little about this community then but I was interested in the social and economic impact of large development projects. At the University of Waikato where I was employed in the Geography Department I was already working with colleagues Robert Mahuta, John Rangihau and Jim Ritchie on the impacts of the Huntly Power Station and contributing to the Huntly Monitoring Project, based at the university. During a period of study leave in North America in 1976 I met and talked with a range of people involved in impact assessment from Alaska to Ontario to Arizona, an experience which broadened my perspectives. My time in Fairbanks, Alaska was particularly illuminating (Stokes 1976). I had also reported on impacts at Huntly (Stokes 1977 and 1978). I was also developing a number of local contacts in this new field of environmental impact assessment which was now being applied to public works in New Zealand.

The 1970s was a time of developing awareness and policy-making in the area of resource management in New Zealand. It was also a time of developing awareness of Maori land issues too. This was a significant part of the developing scenario at Ohaaki in the late 1970s. My own position is perhaps best spelled out in one letter, from correspondence I had with the Commissioner for the Environment, W. D. Wendelken, in mid 1977:

> One of the issues involving environmental impact and decision-making which I am particularly concerned about is the conflict of "national interest" versus the welfare of local communities on whom a major project is imposed. While in Canada I talked to several people about the proposed Mackenzie Valley Pipeline. Some of the Fairbanks people I met had given evidence to the enquiry conducted by Mr Justice Berger last year. I have now just received a copy of the Berger Commission Report. It is a very impressive document, not just in terms of format, high standard of illustrations and quality of writing. It also contains the best statement I have seen on this problem of "national interest" expressed by the dominant European urban industrial culture, weighed against the potential destruction of viable indigenous cultures and economies. There was considerable concern on this issue in Alaska and I feel we have a parallel situation in New Zealand. For example, the pressure to preserve indigenous forests is largely an urban middle class environmental awareness thing, and few of these people really understand the implications for local people of tying up large areas in National Parks or other preservation systems. This has affected Tuhoe people in the Urewera; the Nga Manawa Incorporation in the Kaimai-Mamaku area

have had to put up with a great deal of pressure from environmentalists because these Maori groups are trying to get some income from their lands by planting pine trees. In the past they have also been castigated for leaving their lands idle and unproductive. They can't win, but I think there are a lot of South Island Pakeha West Coast people whose livelihood depends on timber milling who would understand their attitudes. I have had arguments with my ecology-minded university colleagues on this. But my attitude is based on childhood experience; my uncles were timber millers in the Kaimai, and many of my school holidays were spent at the Whakamarama mill settlement (it disappeared when the mill closed in 1946). It was from the mill people that we learned to appreciate, understand and respect the bush. But it was also a means of livelihood for these people, Maori and Pakeha, and they also understood the need for long-term conservation and management of slow-growing indigenous trees. I might also add that most of the Kaimai-Mamaku has been milled at least once since the 1880s. I also think that far more destruction has been perpetrated by feral goats in the Kaimai in the last 20 years than by mill people in the last 80-90 years. I also believe pine trees are here to stay, for they regenerate themselves without being planted by people, and we need their timber.

I enclose a copy of a paper I have done on the Maori Community at Waahi Marae [see Stokes 1977] in which I have tried to suggest some of the social and economic impacts of the Huntly Power Station, and put them in historical and cultural context. This is a good example of locating a power station with no regard whatsoever for existing community patterns, and no real attempt to talk to the local people and listen to their grievances. After four years of construction some senior NZED men came to the marae for the first time when Duncan McIntyre [Minister of Maori Affairs] visited earlier this year to receive submissions from the local people. Now NZED is prepared to negotiate, but there are still a lot of Pakeha legalistic hoops to go through, such as the "appropriate statutory authority" to represent them. To my simple mind, the obvious thing to do, way back, was for NZED to have someone (or more people) with a brief to talk to the local people, a sort of mediator/conciliator/community relations officer, someone who was prepared to go to the marae, and talk to the marae committee and anyone else who wanted to come along and have his or her say in the meeting house, someone who could get the feel of local attitudes. It would have saved a great deal of the tension, bitterness and argument that has divided this community since. It is difficult to put a measure on this sort of community stress, but there is no doubt in my mind that tensions at Waahi have been exacerbated by the power station construction and the lack of sensitivity toward Maori attitudes to the station. The residents of Te Atatu in Auckland were able to convince [Prime Minister] Norman Kirk several years ago that Auckland Thermal No. 1 should not be located in their suburb, so why should Waahi people feel any better about the Huntly Station. But they might have felt a lot better about it if there had been a conscious effort to involve them in some of the decision-making, and a really effective means of communication between the project and local people, Maori and Pakeha, established. The appointment of a Maori representative on the Huntly Planning Forum was a token gesture, and an unofficial version of how this functions is that it is simply a meeting where MWD and NZED "tell" others there what they are up to.

I have perhaps got a little carried away but I do feel this national interest versus local community welfare is a critical issue that we must face. There is a lot of loose talk about our multicultural society but unless we are prepared to accept alternative ways

> of communicating, and make it possible for the less well educated, less articulate minorities or lower socio-economic groups, however measured, to voice their objections and be heard, we will go on making decisions that are handed down from above in the national interest, and store up more local community resentment to create future problems.
>
> Another impressive thing about the Berger Commission was the very flexible way "community hearings" were conducted in Indian and Eskimo villages. We can learn from this….
>
> I do not mean to be unkind to the environmental movement at all. There is a great deal of energy and enthusiasm and talent that could and should be encouraged and used productively. I do feel that there is too great a dominance of the urban middle class, white collar, professional (I don't like any of these terms specifically but don't have a suitable comprehensive one to substitute) and understandably they tend to project their values. I don't think we know nearly enough about other groups in our society, the "workers", ethnic minorities and so on – what are their values and priorities in the environment area.

When I wrote this letter it was still assumed by all concerned that the Government (the Crown) would go on being the principal developer of 'public works' such as power stations in the national interest. No one could foresee the massive restructuring of government departments and establishing of state-owned enterprises in the mid 1980s. All of the negotiations leading up to the start of construction of Ohaaki power station in 1982 were done under the looming shadow of the Public Works Act and the national interest, executed by that benevolent despot the Ministry of Works (Uncle MOW) later known as the Ministry of Works and Development (MWD) aka Ministry of Works and Bulldozers.

As a member of the government Minerals and Energy Advisory Committee in the mid 1980s I was a minor participant in the restructuring of the energy industry, that is until the committee was put into recess in 1988 because the government of the day did not like our advice. Through the 1980s and until I resigned from the Ngati Tahu Tribal Trust in 1992, Ohaaki, Ngati Tahu and energy issues generally occupied a substantial portion of my life, an experience I do not regret, although there were some rough patches too. This paper is, therefore, a personal view and I take full responsibility for opinions expressed herein. However, I hope it also has a message about how the dispersed Maori community of Ngati Tahu was able to cope with a major development project, Ohaaki Geothermal Power Station, dumped in the backyard of Te Ohaaki Marae in the national interest.

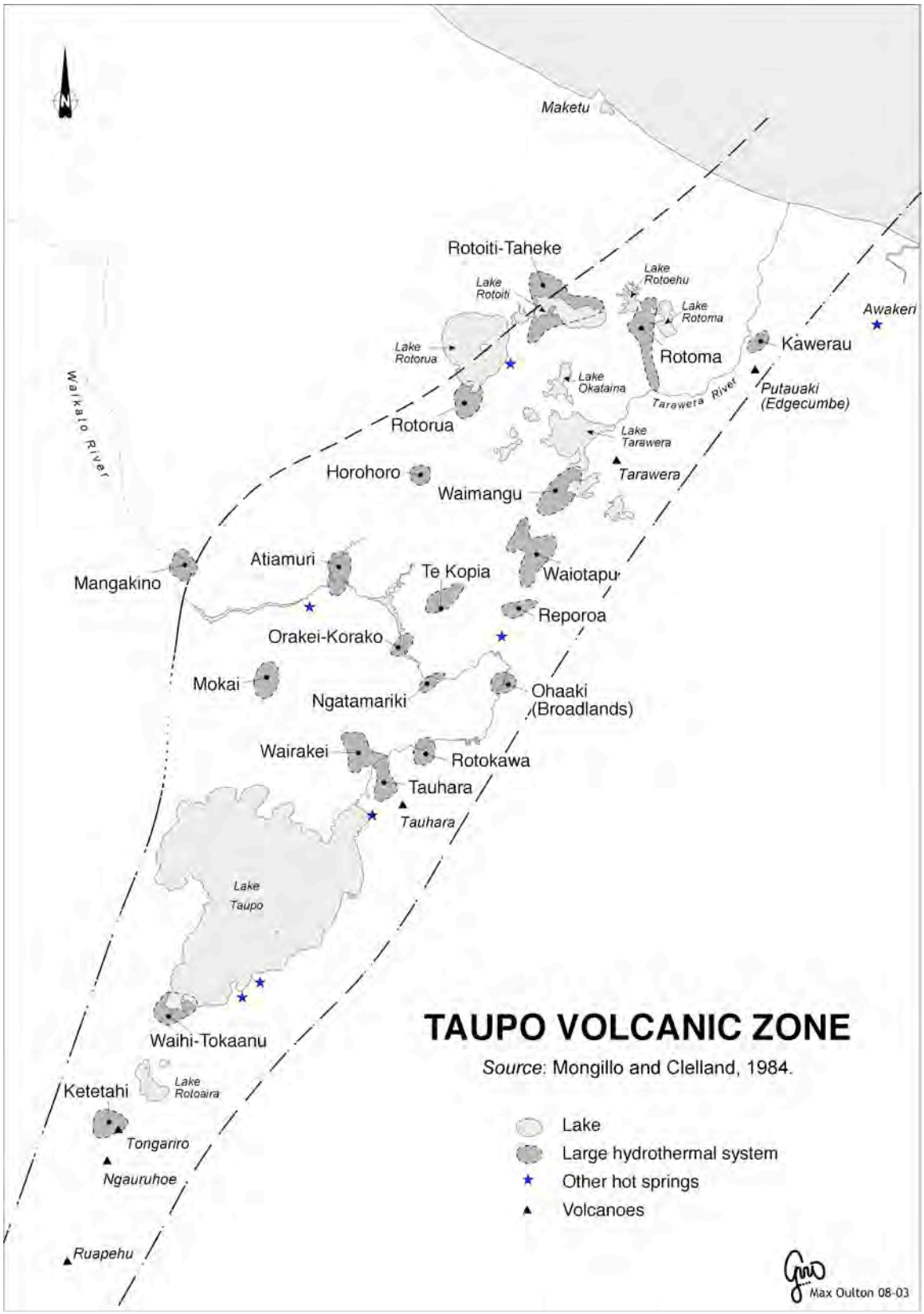

Maketu
Rotoiti-Taheke
Lake Rotoiti
Lake Rotoehu
Lake Rotoma
Awakeri
Lake Rotorua
Rotoma
Kawerau
Lake Okataina
Tarawera River
Putauaki (Edgecumbe)
Waikato River
Rotorua
Lake Tarawera
Tarawera
Horohoro
Waimangu
Atiamuri
Te Kopia
Waiotapu
Mangakino
Reporoa
Orakei-Korako
Mokai
Ngatamariki
Ohaaki (Broadlands)
Wairakei
Rotokawa
Tauhara
Tauhara
Lake Taupo
Waihi-Tokaanu
Ketetahi
Lake Rotoaira
Tongariro
Ngauruhoe
Ruapehu
TAUPO VOLCANIC ZONE
Source: Mongillo and Clelland, 1984.
Lake
Large hydrothermal system
Other hot springs
Volcanoes
Max Oulton 08-03

Figure 1.

2. Geothermal Exploration 1966-1976

The Taupo Volcanic Zone is studded with patches of geothermal activity (Figure 1). An exploration programme on what became known as the Broadlands Geothermal Field was begun by the Ministry of Works in 1966. By this time the Wairakei Geothermal Power Station was operating successfully and some exploratory wells had been drilled at Rotokawa as a possible back up steam source for Wairakei. Attention was being extended to other potential sources of geothermal energy in the Taupo district. The Ohaaki area, with its active surface geothermal activity looked a likely prospect. In October 1966 notices of entry under the Geothermal Energy Act 1953 were sent, according to the records of the Ministry of Works and Development (MWD), to 'representative majority shareholders of land likely to be affected'. These names were supplied to MWD by the Maori Land Court, and the issue of notices recorded by the Court (Taupo MB 43/50). According to MWD, 'signed copies' of the notices were 'returned. In several cases owners were interviewed'.

There were rate debts on several of the Maori blocks and Taupo County Council had applied to the Maori Land Court to have these lands vested in the Maori Trustee. A proposal by the Department of Maori Affairs in the late 1950s to establish a land development scheme on the Tahorakuri blocks on the west bank of the Waikato River had not been proceeded with as the Ministry of Works had already asked that the geothermal area be excluded. The blocks were vested in the Maori Trustee. In early 1967 the Maori Trustee was about to offer several blocks for lease by public tender. On 1 April 1967 the Maori Land Court heard an application by MWD to vary the terms of the trust under s.438 of the Maori Affairs Act, by which the lands had been vested in the Maori Trustee, to enable a lease by MWD for geothermal exploration (Taupo MB 40/260-261 and 43/53). On 15 November 1967 leases from the Maori Trustee were signed by MWD over Tahorakuri A1 Sections 24B, 30, 34 and 35. Because rates had been paid on Sections 16A, 16B1, 16B2 and 19, MWD did not feel it needed to lease these blocks and notices of entry under the Geothermal Energy Act were sent to all these owners in July 1967.

In the Geothermal Energy Act 1953 at s.3 'the sole right to tap, take, use, and apply geothermal energy on or under the land shall vest in the Crown, whether the land has been alienated from the Crown or not'. The act was administered by the Ministry of Works and in s.6 the powers of the Minister and his authorised agents were set out. These included doing geological and geophysical surveys, sinking bores, and other scientific investigations. In s.6(1)(a) the Minister's powers included: 'Enter and re-enter from time to time upon any land… with such assistants, gear, appliances, and equipment as he thinks fit'. Provision for notice of entry was set out in s.6 (3): 'when practicable, reasonable notice of the intention to enter upon any land owned by another person shall be given to the owner and occupier thereof'. There were also powers in s.7 to take under the Public Works Act 1928 'any land necessary for the tapping, taking, use, or application of geothermal energy for any purpose in connection with any public work'. There was no requirement to seek or gain consent from owners of any land affected, or otherwise consult. A notice of entry was, therefore, simply a notice that MWD was moving on to the land with its bulldozers and other equipment and there was little any owner could do to stop it.

At this stage no lease had been taken out by MWD on Tahorakuri A1 Section 1 block because of some doubt about the reserve status of this land which included Te Ohaaki Marae, urupa, ngawha and other wahi tapu. In 1932, when most of the partitions of Tahorakuri A1 were made by the Maori Land Court, Section 1 (255 acres) was described as 'Ohaki

Papakainga Reserve' and vested in all the 210 owners of Tahorakuri A1 block. However, this reserve was never gazetted as such. By mid 1969 six of the ten wells drilled on Maori land were on Section 1 (Figure 2). According to MWD records:

> As successful drilling operations were found to be occurring mainly on Section 1 and there was concern among local owners regarding the lowering of the Ngawha or Ohaki Pool and other matters a meeting was called by the District Office [Department of Maori Affairs] at MWD's request to enable owners to be informed of proposed activities and matters affecting the Ngawha, Urupa and Marae….
>
> A Committee of local representative owners was set up at this meeting for liaison with MWD re future works and areas visited to ensure no areas of historical interest or burial grounds would be affected.
>
> Messrs Tai Nepia and Rangi Philipps visited [geothermal well] sites 18, 19, 20, 21, & 22 over the period May 1969 – April 1970.

I have found no evidence of any consultation with Maori owners before this, and certainly not in relation to the location of the 10 wells.

In November 1973 MWD agreed to lease most of Section 1 on the same terms as the other leases and back dated to 1967. The Maori Trustee leased the several Maori-owned Tahorakuri A1 blocks on the west bank of the Waikato River to 'Her Majesty the Queen for the purposes of the Public Works Act 1928'. The lease term from 1967 was five years, with a right of renewal exercised in 1971 and 1974. The lease document was a standard Maori Trustee lease used for farm land with the usual provisions, and with one additional clause:

> That the lessee will during the said term investigate sources of geothermal energy directed to its ultimate use, if found meet, in the areas of generation of electricity, production of heavy water or otherwise howsoever.

The annual rental was at 7 percent of government valuation for each block of land. The standard provisions for payment of compensation for improvements in a farm lease were deleted on the MWD leases of geothermal land.

Several small areas within Tahorakuri A1 Section 1 block were excluded from the lease and set aside in February 1971 as Maori reservations under s.439 of the Maori Affairs Act 1953 (Rotorua MB 154/265 -268). The cost of surveys of the reserves was paid by MWD. The reserves were later gazetted 'for the purposes of a burial ground, meeting place, bathing place, and a place of historical, cultural and scenic interest for the common use and benefit of the Maori peoples generally' (*New Zealand Gazette* 1971, p.1648). These were described as the Marae Reserve (4 acres), Ngawha Reserve (2 acres), Urupa Reserve (4 acres) and Fertility Rock Reserve (9 perches). In November 1971 the Court appointed 14 trustees for the four reserves (Rotorua MB160/179-181). Except for these small, disparate areas, the whole of the former Ohaaki Papakainga Reserve was leased. A strip along the Waikato River had already been taken by the Crown for water power purposes for Lake Ohakuri (*New Zealand Gazette* 1967, p.1263).

By early 1976 a decision had been made that the geothermal energy resource in the Broadlands Geothermal field was sufficient to support the development of a power station.

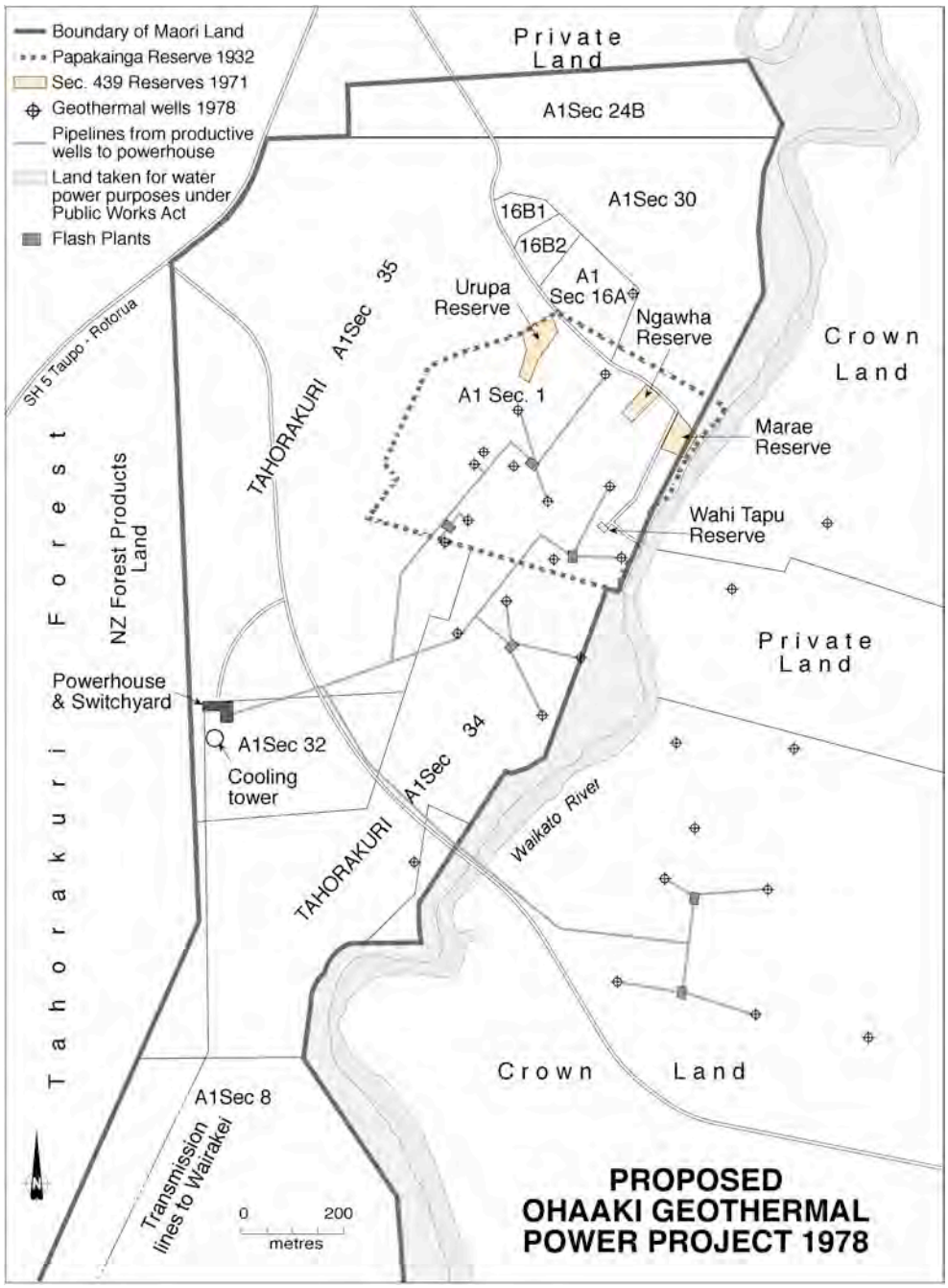

Boundary of Maori Land
Papakainga Reserve 1932
Sec. 439 Reserves 1971
Geothermal wells 1978
Pipelines from productive wells to powerhouse
Land taken for water power purposes under Public Works Act
Flash Plants
Private Land
A1Sec 24B
A1Sec 30
16B1
16B2
A1 Sec 16A
Urupa Reserve
Ngawha Reserve
Crown Land
A1Sec 35
TAHORAKURI
A1 Sec. 1
Marae Reserve
Wahi Tapu Reserve
SH 5 Taupo - Rotorua
NZ Forest Products Land
Tahorakuri Forest
Private Land
Powerhouse & Switchyard
A1Sec 32
Cooling tower
A1Sec 34
TAHORAKURI
Waikato River
Crown Land
A1Sec 8
Transmission lines to Wairakei
0
200
metres
PROPOSED OHAAKI GEOTHERMAL POWER PROJECT 1978

Figure 2.

Most of the contact between Maori owners and MWD was informal, with engineers involved with geothermal exploration. All the families had moved away. In June 1976 there was a meeting at Te Ohaaki Marae attended by three officers from the Department of Maori Affairs in Rotorua, and three MWD people, including Basil Stilwell, a geothermal engineer in charge of exploration work who seems to have become the main contact person with local Ngati Tahu. There were six Ngati Tahu present, described as 'owners' representatives', four of whom were trustees for the marae and other reserves. By this time, four of the 14 trustees had died, and some of the discussion involved the question of 'replacement trustees'. No formal action followed and informal contact was maintained by MWD geothermal engineers based at Wairakei with a small group of owners, mainly some of the trustees, who lived in the Rotorua and Reporoa district.

The main business of the June 1976 meeting was to discuss a solution to the loss of hot water supply to the baths near the marae, because the source in the Ohaaki Pool in the Ngawha Reserve had been affected by draw-off during the testing of nearby geothermal wells. One option was for MWD to build new baths, but only a temporary solution could be envisaged until power station development proceeded. The subsequent problems with the ngawha are outlined in Chapter 11. The temporary pool constructed by MWD in the late 1970s was not regarded as a satisfactory replacement by local people. Also recorded in the minutes of this meeting was:

> Ministry of Works are required to send to the Maori Trustee a written undertaking regarding the hot water. It was agreed that it would not be necessary to include this undertaking in the lease documents which are, as yet, to be drawn up.

Ngati Tahu had made it clear to MWD that a supply of hot water and steam would be part of any longer-term arrangement for geothermal development at Ohaaki.

The question of compensation was also raised. The minutes record: 'It was agreed that compensation was a separate issue to be negotiated upon completion of the geothermal works.' The trustees wanted some funds to renovate the old marae buildings. A meeting of over 30 owners of Tahorakuri A1 Section 1 in 1973 had failed to reach agreement on allocating some of the rent money from the MWD lease held by the Maori Trustee. One of the owners, a major shareholder, had applied to the Maori Land Court for a meeting of owners to consider a resolution that moneys held by the Maori Trustee from the lease of the block 'be applied and paid by him to the duly appointed trustees of Ohaaki Maori Reservation for the repair and maintenance of the buildings there on' (Rotorua MB 170/195-196). This resolution was read to the subsequent meeting of owners chaired by a member of the Court staff. The minutes of that meeting record:

> A lengthy discussion (lasting some $1^1/_2$ hours) followed during which many owners voiced their opinions – most were against the proposal and wanted money distributed to the owners who could then decide what to do with their share of the rent – some opposed on the grounds that they could not see why Ohaki should benefit solely – there were other tribal maraes that could also use the money.

At the 1976 meeting the question of the Maori Trustee providing some of the rent money was canvassed, but no further action appears to have been taken. When I first visited Te Ohaaki Marae in 1978 the beautiful old carved meeting house was badly in need of repair. In the

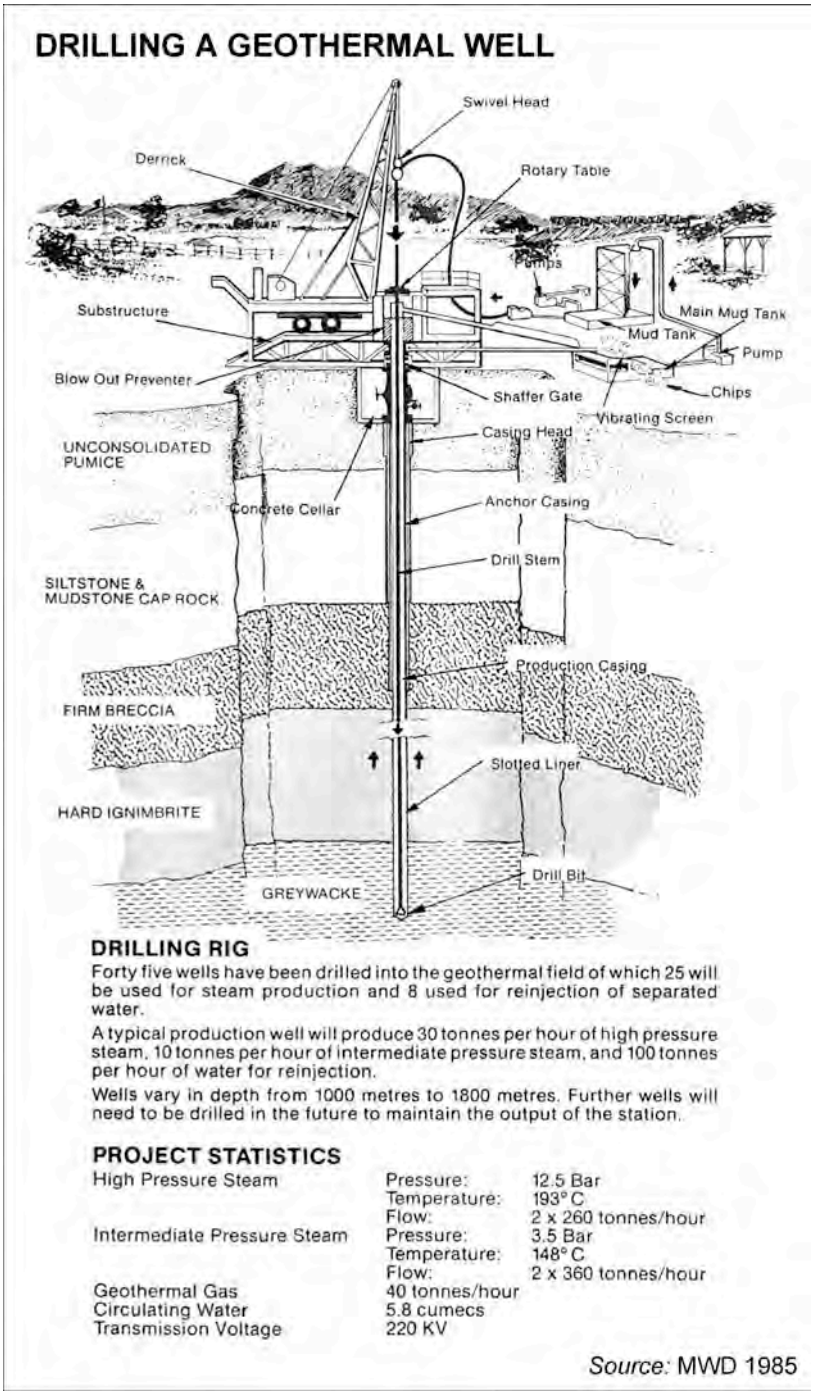

DRILLING A GEOTHERMAL WELL
Swivel Head
Derrick
Rotary Table
Pumps
Substructure
Main Mud Tank
Mud Tank
Pump
Blow Out Preventer
Shaffer Gate
Chips
Vibrating Screen
Casing Head
UNCONSOLIDATED PUMICE
Concrete Cellar
Anchor Casing
Drill Stem
SILTSTONE & MUDSTONE CAP ROCK
Production Casing
FIRM BRECCIA
Slotted Liner
HARD IGNIMBRITE
Drill Bit
GREYWACKE
DRILLING RIG
Forty five wells have been drilled into the geothermal field of which 25 will be used for steam production and 8 used for reinjection of separated water.
A typical production well will produce 30 tonnes per hour of high pressure steam, 10 tonnes per hour of intermediate pressure steam, and 100 tonnes per hour of water for reinjection.
Wells vary in depth from 1000 metres to 1800 metres. Further wells will need to be drilled in the future to maintain the output of the station.
PROJECT STATISTICS
High Pressure Steam
Pressure: 12.5 Bar
Temperature: 193° C
Flow: 2 x 260 tonnes/hour
Intermediate Pressure Steam
Pressure: 3.5 Bar
Temperature: 148° C
Flow: 2 x 360 tonnes/hour
Geothermal Gas 40 tonnes/hour
Circulating Water 5.8 cumecs
Transmission Voltage 220 KV
Source: MWD 1985

Figure 3.

dining hall, kitchen facilities consisted of an open fireplace in a dilapidated old building, and toilet facilities were minimal.

During 1976, a decision having been made to construct a geothermal power station at Ohaaki, staff in the Power Development Division of NZED began work on preparation of the Environmental Impact Report required under the environmental impact procedures put in place by a Cabinet directive in 1973. In December 1976 a meeting was convened at Taupo to consider a 'Social Effects Survey'. The meeting was chaired by J. M. Black, Taupo County Chairman, and attended by three NZED representatives from Wellington and one from Hamilton, four MWD geothermal engineers, two DSIR scientists, the mayor of Taupo Borough and two staff, two other members of Taupo County Council, plus the County planner and engineer, and two members of Rotorua County Council plus County Engineer. Much of the discussion focussed on the options for location of housing and infrastructure for the workforce. It was agreed to set up 'a representative advisory committee' to assist with the proposed social survey. In addition to the NZED and MWD representatives, there should be one each from Taupo and Rotorua Counties, two from Taupo Borough, someone from Federation Farmers at Reporoa and 'one nominee from the Trustees of the Maori Marae'.

The meeting of representatives at Taupo had 'agreed that the local Councils would arrange for representatives from the Marae and Federated Farmers'. However, it was Basil Stilwell of MWD who took the initiative and wrote to Blackie (Pango) Tanirau on 21 December 1976, noting that detailed studies were under way on the likely environmental impacts of a geothermal power station:

> To date meetings of representatives of the various departments concerned with the technical aspects of the Project have been covered by the N.Z Electricity Department but the stage has now been reached when the local social and economic aspects have to be considered.
>
> To this end an Advisory Committee is being set up with representatives from Local Bodies, Federated Farmers and the various departments concerned.
>
> The question of Land Utilisation is an important one and as half of the land in question is Maori owned it is considered desirable that a person be appointed to represent the Maori interest on this Committee.
>
> Following discussions with the District Officer, Department of Maori Affairs, it has been decided to ask you to accept appointment to the Committee in this capacity and I understand from the District Officer that you are agreeable to such appointment.

Among numerous other things that had to be considered in the brief prepared by NZED in November 1976 for the 'Social and Regional Effects Section' of the Environmental Impact Report was:

> The effects of station construction & operation on the Maori Land holdings and social activities associated with the reserves within the borefield. Alternative methods of mitigating any adverse effects should be investigated with the participation of the Trustees of the land and reserves.

It was a big ask of Blackie, a retired superannuitant living in Rotorua, with no experience of such things, to act as the sole representative of Maori interests in a committee of government

and local body officers. To date the sole interest of Taupo County in the Ngati Tahu lands in the geothermal field had been getting the rates paid. Years later Blackie's wife told me about how onerous and stressful it was for him as the sole Maori on the committee. He was also a target for other Ngati Tahu owners who questioned him about what was going on, and by what right was he there representing them. He was in a no-win situation. Not that the committee took much interest in Maori perspectives. At the end of the minutes of the first meeting Blackie attended in Taupo on 25 January 1977 it was noted that another meeting would not be called until the various questionnaires for the 'Social Effects Survey' had been completed and analysed:

> It was hoped that by that time investigations under way would have located the preferred site for the station and the extend of the land requirements, and thus enable proposals to be discussed with Mr Tanirau on the Maori land holdings in the borefield area.

The legal owner of the land (excluding the Marae and other reserves) was the Maori Trustee, but he does not seem to have been involved in this discussion at all.

Another meeting was held but it was not until the third meeting of the committee on 6 September 1977 that some firmer idea of land requirements was presented in the final draft of the Environmental Impact Report. According to the minutes of this meeting:

> Mr Tanirau was concerned about the effects of construction activities on the Ohaki Marae. These include vibrations, noise and fog [from increased steam discharges to the atmosphere]. He would like to see appropriate measures introduced to minimise these disturbances. He also questioned whether the name 'Broadlands' was appropriate for the power station. As the station is sited on a piece of Maori land on the western side of the Waikato River historically known as Ohaki, he believed that the power station should be named "Ohaki".

At the end of November 1977 the Broadlands Geothermal Power Development Environmental Impact Report was completed by NZED.

Geothermal Wells
Above: A new well, BR45, ready for testing, the drilling rig has been removed but the mud pool, foreground, is still there, dug into the sediments of the former lake bed in Reporoa Basin.

Right: Testing at BR25.

3. The Environmental Impact Report

In 1977 planning for the construction of a power station was governed by a number of statutes and environmental impact assessment procedures. This was a major shift in government policy from earlier construction by MWD for NZED (see Waitangi Tribunal *Turangi Township Report*). The old NZED was to become the Electricity Division of a new Ministry of Energy. The new statutory planning regime was summarised in an appendix to the 1978 Report of the Planning Committee on Power Development in New Zealand:

> The new Town and Country Planning Act 1977 completes the trilogy of statutes which together permit the testing of claims of possible detrimental effects of a power station proposal on the air, land, and natural water. The other two Acts are the Clean Air Act 1972 and the Water and Soil Conservation Act 1967.
>
> These three are the main Acts which have to be complied with when considering a proposal to develop a power scheme. There is also a Cabinet directive on environmental procedures produced in 1973, concurrent with the setting up of the Commission for the Environment. The commission produced the Environmental Protection Enhancement Procedures, dated November 1973, which have to be complied with when major power schemes are proposed.
>
> There are numerous other statutes which can also influence the course of a proposal and the ease or otherwise with which a scheme may be progressed. These Acts include the Public Works Act 1928, the Electricity Act 1968 and amendments, the Antiquities Act of 1975, the Maori Affairs Act 1953, and the Treaty of Waitangi Act 1975. The Maori Affairs Act is of particular importance when dealing with land under multiple Maori ownership. The Treaty of Waitangi Act may have some bearing when Maori fishing grounds, or other matters affecting Maori rights, are involved. The Judicature Amendment Act 1972 and the Crown Proceedings Act also can be invoked in opposition to a construction scheme — not on its merits but on whether the statutory powers have been properly exercised.
>
> The foregoing indicates the extent to which legal processes have now entered into clearance procedures resulting in unpredictable and possibly lengthy delays (AJHR 1978, D-6B, p.22).

In this chapter and the next the environmental impact reporting and audit procedures are outlined as they developed through 1978.

My initial involvement with the Ohaaki Geothermal Power Project came out of a discussion at New Year 1977 with Peter Wu, who had been employed as the only social scientist in the Power Development Division of the New Zealand Electricity Department (NZED) in mid 1976. Peter was a recent graduate, with an MSocSci in Geography from University of Waikato. As a former student, he sought advice from me and several other university colleagues on ways to go about the process of social and economic impact assessment of a large energy project. By mid July 1977 he was deeply involved in preparation of the social and economic assessment section of the Environmental Impact Report for what was then called the Broadlands Geothermal Power Development. Peter was the single social scientist in a large team of engineers and scientists. I was one of several people asked to read early

drafts and I sent my written comments to Peter, as well as some informal discussions and correspondence through 1977.

In early December 1977 the *Environmental Impact Report for the Broadlands Geothermal Development* was released by NZED for public comment. A substantial area of Maori land, about 565ha (1400 acres), on the west bank of the Waikato River was described as 'required' for the project (Figure 2):

> Within the [geothermal] field itself is the Te Ohaki marae and a burial ground. Land required for the wells is currently leased from the various Maori owners for geothermal investigation purposes. The geothermal development will not encroach upon the marae itself, the burial ground, or other artefacts of tribal importance. There may, however, be sufficient ground subsidence after one or two decades of operation to necessitate relocation of the marae. The extent of possible subsidence is not known at this stage and cannot be predicted accurately (NZED 1977, p.13).

During the exploration phase in the Broadlands geothermal field 1968-74 there had been some subsidence in the vicinity of the marae up to 190mm ($7^1/_2$ inches), although the report suggested that a 'future subsidence pattern could be modified by the different geographic distribution of production wells' (ibid p 84). After the report was released NZED engineers decided that reinjection of waste and thermal fluids deep into the ground would alleviate both the problems of subsidence and prevent disposal of toxic chemicals carried in geothermal fluids into the Waikato River system. Another related modification decided then was that the 'reliability' of the reinjection system was such that the proposed large cooling pond on the site would not be required, and would be replaced by a yet-to-be designed cooling tower system.

There was a separate subsection in the report headed 'Impact on Maori Land'. This is quoted in full:

> The group that stands to be most directly affected is the Maori people associated with the Ohaki Marae, which is located on the eastern [sic: western] side of the Waikato River in the immediate vicinity of the two sites proposed for the power station complex.
>
> Of the land belonging to this marae, some will be needed for construction purposes and much of the rest could perhaps be affected by subsidence.
>
> The submission made by the Department of Maori Affairs (App. 14) shows concern for the Maoris of Ohaki Marae and points to the significance of this marae to the Maoris generally. However, it also recognises that one of the benefits could be the local employment that the power station will provide for the local Maori people, as employment opportunities in the immediate area are limited.
>
> A committee comprising representatives from several local administrative bodies and the Maori Trustee of the land in question has been formed to keep the relevant parties informed of progress in the investigation and as a forum for discussion of the proposed scheme. However, there appears to be a lack of consensus as to the ways and means of keeping the Maori owners informed.

> Because definite plans and policy with regard to land acquisition for the proposed power scheme are yet to be finalised, it is difficult at this stage to ascertain the reaction of the affected Maori people. However problems and differences of opinion regarding compensation for the affected land are envisaged.
>
> It must be understood that the Maori people view their land, their way of life and their heritage very differently from the pakeha. Although open to contention, it can be stated that Maori land and to a certain extent their way of life, are traditions that the Maori people do not equate with money, but instead see as an inalienable right. In view of the lack of a common definition and perception of land, the view of compensation may prove to be difficult to resolve.
>
> While it is not known at this stage whether a policy of lease or outright purchase of the land in question is to be adopted, the decision regarding land policy once made should be communicated to the Maori owners involved, as early as possible.
>
> A suggestion that is believed to have originated among the Maori people of the Ohaki Marae is that the power station be named Ohaki rather than Broadlands. There are a number of arguments that support this suggestion. Firstly, the sites proposed for the power station are actually on the western bank of the Waikato River. That area has long been known by the name Ohaki whereas the name Broadlands is of comparatively recent origin and strictly speaking refers only to the eastern bank of the Waikato.
>
> Secondly, the New Zealand Geographic Board, in its responsibility for nomenclature in respect of places in New Zealand, has in its empowering legislation been given the directive that original Maori place names are to be given preference. While the Geographic Board does not have responsibility for naming power stations, it does have the task of overseeing nomenclature in New Zealand. It would appear likely that the Board would favour the name Ohaki since that is the correct original Maori name.
>
> Thirdly, to use a name other than Broadlands will avoid the name association that this proposed power scheme has with a well-known development company bearing the same name.
>
> The only disadvantage perhaps is that this geothermal power scheme at the time of conception assumed the name Broadlands and is now widely known by that label. However, the geothermal field itself could continue to be called the Broadlands Geothermal Field, as it encompasses more land on the eastern side of the Waikato River than on the western bank (ibid pp. 149-151).

In a report of 172 pages plus appendices, this was a minimal statement of impact on the local Maori community. Ngati Tahu as a tribe were not referred to by name and consultation with the Maori Trustee had produced little active response. Appendix 14 of the report was a letter of less than two pages dated 22 July 1977, written on behalf of the Secretary for the Department of Maori Affairs in Wellington to NZED, responding to a request dated 17 May 1977 for comments on social and economic impacts of the proposed Broadlands Geothermal Project:

> The focus of Maori interest is the Te Ohaki Marae sited within the geothermal field and in close proximity to one of the test bores. This marae was created ‘for the

benefit of the Maori peoples of New Zealand generally' so is of more than local significance. Until the exact location for the power station is decided and the full extent of disturbance can be assessed, it will not be possible to make formal submissions on detrimental effects or provisions under Section 2 (g) of the Electricity Act 1968 Public Amenities clause but Maori population in the immediate vicinity is too small to support a claim for extensive development of local amenities. This must not preclude the Marae claim for restoration of the hot baths for which the hot water supply was lost when project test boring began. The Ministry of Works and Development has been asked to provide two baths on the Marae served with geothermally heated water through channels or by a heat exchange system. Heating to Marae buildings should be provided from the same source.

Te Ohaki and Te Toke, the latter lying south of the geothermal field, are areas of predominantly Maori populations though numbers are not known. There is little local work so many of the more progressive have relocated and are unlikely to return. The remaining workers mostly commute to Reporoa and Taupo but distance and poor public transport contribute to poor work histories for most who still live in these settlements. Some have been in Government Special Work schemes.

The local workforce likely to be attracted to power project employment is expected to be limited to men now commuting to non permanent jobs, unemployed, young people entering the work force and women who have no alternatives available.

We do not see likelihood of any appreciable increases in populations of the mainly Maori settlements in the immediate project area. Existing dwellings and facilities will accommodate any small increase.

Chronic shortage of reasonably priced building sites in and near Taupo is the main obstacle to the Taupo and Wairakei settlement options, which are otherwise favoured by this department as these are areas suitable for construction of homes for a limited number of workers with permanent employment prospects and convenient for servicing by existing Community Officers stationed at Rotorua and Taupo. There would be obvious advantages if the Local Authority also appointed a community worker for at least the duration of project construction work.

Overall, the Maori communities directly affected by the proposed development are small and rather scattered. They will benefit from employment opportunities and expected improvement in communications and transport. The department expects to be able to maintain existing community servicing without increase in staff ceilings.

4. The Environmental Impact Audit 1978

I was not happy with the limited attention given to Maori concerns in the *Environmental Impact Report* and I was not impressed by the memorandum from the Department of Maori Affairs. I wrote a submission to the Commission for the Environment which was required to complete an 'Environmental Impact Audit' on the project. At this stage, I still had no personal knowledge of the tangata whenua, Ngati Tahu, or their marae at Te Ohaaki. My comments were based on my experience of working with Robert Mahuta, John Rangihau and Jim Ritchie on the impacts of Huntly Power Station on the Waahi Marae community and my more wide-ranging research interest in how impact assessment procedures affect local communities. This submission is reproduced in full in Appendix 2.

The Commission for the Environment was required to produce an 'Audit' within three months of the release of the *Environmental Impact Report.* A small interdisciplinary team, led by Paddy Gresham, was deputed to this task. Following my submission I had several discussions with him and also compiled a further brief review of the historical information I could find. In the short time available it soon became obvious that it would be difficult to complete a thorough Audit and an extension was granted. Two other people were added to the Audit team, one from the Meteorological Service, and the other was Pouwhare Te Maipi, a community officer in the Department of Maori Affairs, Rotorua.

In May 1978 the *Broadlands Geothermal Power Development Environmental Impact Audit* was issued by the Commission for the Environment. In the section titled 'Commission's Comment on the Impact Report', it was described as 'a comprehensive document which demonstrates a conscientious attempt to seek information from a variety of sources' but also noted: 'Some of those most affected by the station and hence intimately involved in using the report have found it too technical and difficult to follow' (CFE 1978, p.4). The Commission's comment on 'Impact on the Maori Community' noted that this section was less comprehensive:

> The New Zealand Electricity Department took the innovative step of convening a "social effects committee" to provide information on the socio-economic impact of the Ohaki project. A representative of the Ohaki Maori community was appointed to the committee.
>
> Despite this action there is relatively little comment in the impact report about Maori land issues and the likely impact of the proposal on the Ohaki Maori community who are particularly affected. The lack of comment may reflect inherent problems in communicating details of a development project to a diffuse Maori community and consequently in obtaining information about how that community considers itself to be affected.
>
> All Maori land has special value for its people which, in the case of Ohaki, is reflected in the following statement conveyed to the Commission for the Environment by an elder of the Ngati Tahu:
>
> "Te Ohaki is the name of the area wherein this scheme to generate power is planned. I take you back to the origin of this name. In its extended form it is known to us as Te Ohaki-a-Ngatoroirangi, the meaning of which shows that the land and particularly the

1.

3.

2..

4.

Te Ohaaki Marae in December 1978: 1. The meeting house Tahumatua. 2. An old house at the marae. 3 and 4. Front and back views of the old dining hall, Wairakewa

thermal area associated with it, is a legacy left to his descendants by the ancestor Ngatoroirangi.

Now traditions tell us that the geothermal activity of the area was brought to Ohaki from Hawaiki when Ngatoroirangi called on his ancestors Te Pupu and Te Hoata to bring the sacred volcanic fire (ahi tipua) to sustain him from perishing of cold and exposure on the snow-clad summit of Tongariro. In bringing the sacred fire to warm Ngatoroirangi, Te Pupu and Te Hoata surfaced at a number of land points, such as White Island, Rotorua and Te Ohaki before finally erupting forth at Tongariro.

The name of Te Ohaki-a-Ngatoroirangi therefore commemorates this incident in our history, and as such, we his descendants, have a sense of commitment to preserve this legacy for the enjoyment and use of generations to come" (ibid p.5).

There are several versions of the story of Ngatoroirangi: some say his sisters, Kuiwai and Haungaroa travelled with the volcanic heat; some say the sisters sent their atua (spiritual beings) Te Pupu and Te Hoata; others say these two were ancestors (see Stokes 2000). None of this detracts from the main impact of the story that geothermal energy is a significant taonga inherited from the ancestors.

In its 'Appraisal' section the Commission commented further on the 'Ohaki Maori community', under the heading 'Economic and Social Impact' of the proposal:

Much of the land affected by the Ohaki project on the western side of the Waikato River is Maori land. The focal centre of this land is the marae of Te Ohaki but there are other specific sites affected by the scheme that also have particular importance to the Maori people.

Te Ohaki is the main marae of the Ngati Tahu, the home people of the Reporoa-Broadlands area. The village that was once associated with the marae has been almost completely abandoned as the people migrated to Reporoa, Rotorua, Taupo and elsewhere looking, mainly, for job opportunities. There is now only one household at Te Ohaki but the marae is still used by members of the Maori community for huis or gatherings.

Although the Te Ohaki marae is seemingly neglected it nevertheless retains considerable importance for the Ngati Tahu. The peculiar significance of the marae institution and the ties which this creates is as important to the Ohaki community as it is to other Maori communities who still live on their maraes. The Ohaki Maori community has amongst its number the many hundreds of owners associated with the land and who see the marae of Te Ohaki as their turangawaewae.

The institution of the marae has particular significance to the Maori people but so too does the land. In the Maori view land is endowed with an intrinsic value unrelated to its commercial worth. Owners of Maori land may regard themselves as custodians of the land which is for their use for a lifetime and which they must pass on to their children. This attitude towards land makes it an extremely sensitive subject when there is the possibility of alienation.

> Knowledge of how the Ohaki Maori community may be affected by the proposal requires firstly the community to know what may happen to their land and secondly for the community to have some means to express its views. Although genuine efforts were made by the NZED (and its development agent, the Ministry of Works and Development) the Commission considers these efforts have not succeeded. The Commission's investigations indicate that the implications of the scheme are not widely understood by the Ohaki community. There has been insufficient opportunity for the Ohaki community to explore fully the implications of the scheme and give full and considered expression of thought on its effects.
>
> There are inherent difficulties in communicating with a group as diffuse as the Maori community of Ohaki. These difficulties are increased if the community is unfamiliar with formal planning processes and unaccustomed to responding to invitations for submissions or objections. These difficulties must be recognized and methods found to inform such communities early in the planning stages and receive back the cross-section of informed advice that is necessary for balanced planning decisions. Information could be distributed, for instance, by way of a panui to all owners and meetings on the marae could be held to discuss proposed projects.
>
> In this instance the Ministry of Works and Development intend to put forward to all owners a proposal for purchase of Maori land at a meeting of the Maori Land Court on the Te Ohaki marae. This meeting presents an opportunity for all owners to gather at the marae prior to the court meeting to hear about the development of the geothermal field and how their land may be affected. It would also provide an opportunity for owners to question the developers about aspects of the scheme. Some Maori owners have expressed a wish for leasing arrangements with the Crown for the life of the station. This option (which would take account of the Maori community's special relationship with their land) should also be explored at such a meeting as should the possibility of a land exchange.
>
> Notice of such a proceeding or 'open' meeting could be sent out with the formal notification of the court hearing and could include maps and material providing information about the development of the Ohaki geothermal field.
>
> Because the Commission is not able to establish from first hand the wishes of the Maori community, it is not in a position to recommend the preferable option for land alienation. However, as this audit will be made public before the proposed meetings it is appropriate that the Commission indicate its preference. We believe that a suitable formula for leasing the appropriate parcels of land can be developed and a lease drawn up that meets the needs of both parties. Alternatively, an exchange of land may be negotiated (ibid pp. 27-29).

In its conclusion the Commission indicated that more discussion was needed with Maori owners of the land who were 'concerned that they may lose all rights to the land required for the station' (ibid p.32). The Commission gave a clear indication that an alternative to Crown acquisition in the form of a lease or exchange was preferable.

In 1977 Crown policy on tenure of land to be used for any public work was to acquire title to it, either by negotiation with the owner(s) or take it by proclamation under the Public Works

Act. All the land for Waikato River hydro schemes had been acquired in this way, including a strip along the river bank at Ohaaki taken in 1967 to allow for the formation of Lake Ohakuri behind the dam constructed downstream in the 1960s. One exception was the Maori land at Mangakino, intended to be the site of a temporary works town for the hydro schemes, but this temporary town survived and the land, with the existing leases of houses and commercial property, was returned to the Maori owners. However, Turangi Township, another works town on Maori land, was taken under the Public Works Act (see Waitangi Tribunal 1995 *Turangi Township Report*).

Until it was suggested in the *Environmental Impact Report* that it had not yet been decided 'whether a policy of lease or outright purchase of the land is to be adopted' it had been assumed that land for the Ohaaki power project would be acquired by the Crown under the Public Works Act. The Ministry of Works, which administered this Act, certainly assumed this. On 17 January 1977 the Commissioner of Works, N. C. McLeod, wrote to NZED:

> As you are aware the site where the investigations have been carried out has been leased by this Department for some time. However this was not due to any departmental policy but to the fact that the land carried a large rate debt in favour of the Taupo County Council. The County Council, in order that it might have some prospect of recouping its rates, applied to the Maori Land Court to have the land vested in the Maori Trustee so that a lease could be arranged which would enable the Council to recover its outstanding rates.
>
> From enquiries made through my Hamilton office it would seem that the acquisition of the freehold of the Maori owned land will not present any great problem. The local Maoris are aware of the proposal and discussions have already been held in respect of the resiting of the Marae area.
>
> The Chief Judge of the Maori Land Court is also aware of the proposal as he has commented during a sitting of the Maori Land Court that if the Maori owned land was required by government for geothermal development it would be so acquired.
>
> As soon as the land required can be defined it is recommended that steps be taken to obtain the freehold and I should be pleased to receive your concurrence to this proposal.

In a submission to the Commission for the Environment, dated 21 February 1978, David Burton of the Town and Country Planning Division, Ministry of Works, Hamilton remarked:

> It is stated [in the *Environmental Impact Report* p.149] that it is not yet known whether a policy of outright purchase or lease of the Land (Maori Land included) is to be adopted. This statement is misleading and unresearched with regard to government policy. The policy of the Crown is quite clear in that where permanent improvements are to take place on the land, that land is to be acquired, not leased, etc. This point should be made clear (CFE 1978 Submission 13, p.2).

Burton went on to comment 'that the Crown at present leases a large area from the Maori owners (marae site etc. excluded)' and that 'satisfactory lease arrangements for about 10 years' covered the borefield on the project site (ibid p.3).

In commenting on submissions to it on the issue of land acquisition the Commission for the Environment in its *Environmental Impact Audit* noted:

> The New Zealand Maori Council confirmed its previously stated policy by preferring a leasing proposal for the land. On the other hand the Ministry of Works and Development stated that Government policy was to purchase land "where permanent improvements are to take place on the land…".
>
> The Department of Maori Affairs asked that the land requisition proposal be fully discussed by the Maori owners and government agencies, so that the thoughts and feelings of the Maori people could be better appreciated (CFE 1978, p.12).

The audit also quoted in full the relevant paragraph in my submission. Among the conclusions of the Audit, the Commission listed the concern that the 'Ohaki Maori community … may lose all rights to their land required for the station'. It suggested 'further consultation but the Commission believes that a leasing formula may provide an answer to this concern' (ibid p.32). The Commission also recommended that a 'meeting of the Ohaki Maori community be called' to provide a 'clear explanation of the scheme and its foreseeable effects', and outline the options for the Crown 'in acquiring use of Maori Land for the life of the station', and to hear the views of 'the affected people and their preferences' (ibid p.35).

5. The Ministry of Works Attempts to Purchase the Land

On 3 October 1978 the Minister of Works and Development lodged applications with the Maori Land Court in Rotorua to summon meetings of owners of several Tahorakuri A1 blocks to consider a resolution to sell the land to Her Majesty the Queen. The lands involved were:

Tahorakuri A1	Area (hectares)		No. of owners in 1978
Section 1pt	85.6799	(99.4009)	517
32	28.0700		140
34pt	137.1358	(154.2838)	92
35	197.5197		82
Total	498.4054		

Where only part of a block was sought the total area is shown in brackets. Section 19 of nearly 4 hectares was also included in the intended purchase but as there was only one owner the Court did not need to call a meeting of owners. The price offered was the Government valuation of the land in 1978.

A letter was also sent to all owners of these blocks by the Minister of Energy with an explanation of the project. It is reproduced in full below with the two maps that were attached to it (Figures 4 and 5):

OHAKI GEOTHERMAL POWER STATION

Introduction

Geothermal power from Wairakei has contributed to our electricity supply over the last 20 years. The experience gained at Wairakei has also been applied in helping under-developed areas of South America, South-East Asia and Africa. New Zealand is proud of this contribution to the well-being of mankind.

The Ministry of Works and Development and the Department of Scientific and Industrial Research have, for the past few years, been drilling and testing steam bores in the Ohaki-Broadlands area. This work has been done to prove the extent of geothermal power and whether it is economically and environmentally possible to use that power for a geothermal electricity generating station. It is now intended to build a power station (to be called Ohaki Power Station).

The Land Involved

The site is near the Ohaki Marae on the western bank of the Waikato River. A sketch plan is attached which shows the land and the works planned on it. The site is 450 hectares (1110 acres) of Maori freehold land. Most of this land has been leased to the Crown for testing.

The Crown has applied to the Maori Land Court at Rotorua to call a meeting of owners to consider selling the area needed for the power station.

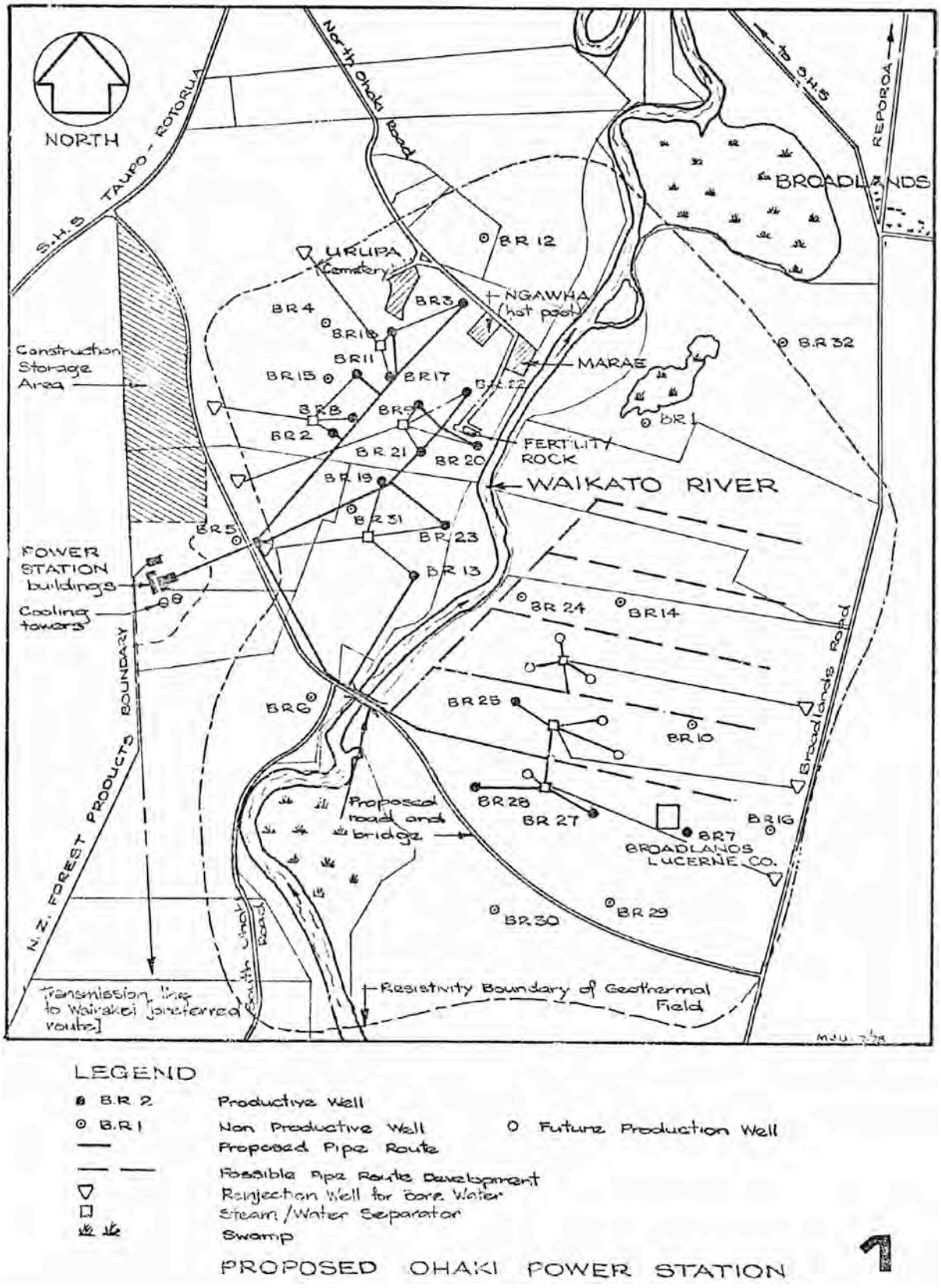
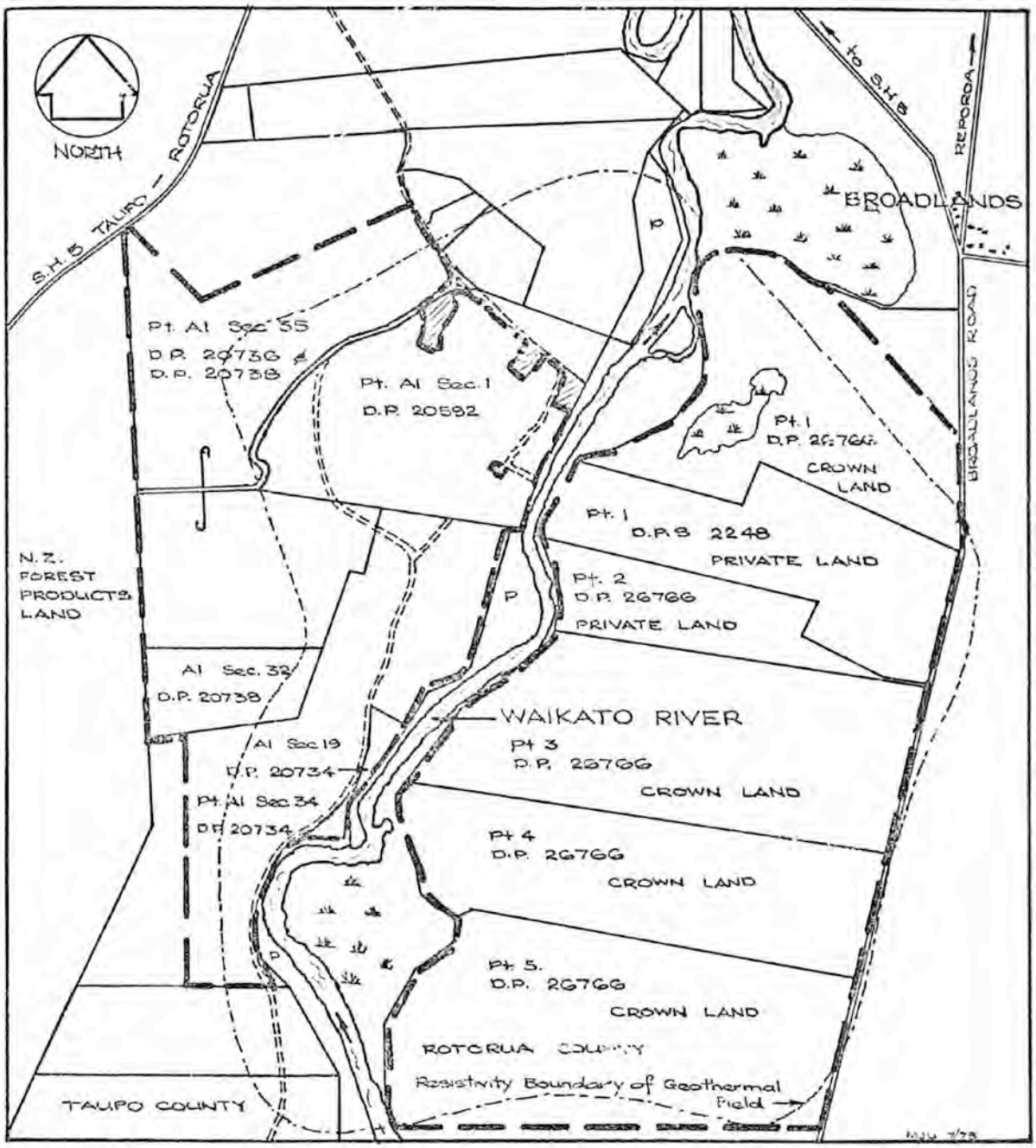

NORTH
S.H.5 TAUPO - ROTORUA
North Ohaki Road
TO S.H.5
REPOROA
BROADLANDS
URUPA (Cemetery)
NGAWHA (hot pool)
BR 12
BR 4
BR 3
BR 18
BR 11
BR 15
BR 17
BR 22
BR 8
BR 9
BR 2
BR 21
BR 20
BR 19
BR 31
BR 23
BR 13
BR 5
BR 6
BR 24
BR 14
BR 25
BR 10
BR 28
BR 27
BR 16
BR 7
BR 30
BR 29
BR 32
BR 1
MARAE
FERTILITY ROCK
WAIKATO RIVER
Construction Storage Area
POWER STATION buildings
Cooling towers
N.Z. FOREST PRODUCTS BOUNDARY
Proposed road and bridge
BROADLANDS LUCERNE CO.
Broadlands Road
South Ohaki Road
Transmission line to Wairakei (preferred route)
Resistivity Boundary of Geothermal Field
LEGEND
B.R 2 Productive Well
B.R 1 Non Productive Well
O Future Production Well
Proposed Pipe Route
Possible Pipe Route Development
Reinjection Well for bore Water
Steam / Water Separator
Swamp
PROPOSED OHAKI POWER STATION

Figure 4.



LEGEND

▨	Maori Reserves
▬ ▬	Land to be designated
P	Water Power Development Reserves

LAND TO BE DESIGNATED

Figure 5.

Previous Contacts

From the beginning of investigations the Ministry of Works and Development has tried to keep the owners informed both directly and through their representatives.

The Ministry has met owners at sessions of the Maori Land Court, in connection with the leasing of land and the setting aside of Maori Reserves. Meetings of owners and Advisory Trustees were arranged on the Ohaki Marae to discuss land entry, hot water, and baths construction, and to keep them informed on the progress of the work. Nevertheless the proposals may be new to some of you.

Crown Undertaking

The Government appreciates the feeling that you have for your land and will ensure:

- That areas, needed during construction of the station, but not essential in its operation, will be revested in the owners should they wish.
- That areas of special significance such as the marae, the urupa, the ngawha and the fertility rock, will be screened by suitable fencing and planting, with adequate access thereto secured by road or roadway order.
- That operational noise levels will be kept as low as practicable.
- That every effort will be made to ensure that any benefits arising from the operation of the station are available to the Marae, provision of heating, water, etc. are examples.
- That, when the part of Ohaki Road within the proposed site is closed, alternative roading will be provided.
  (The Crown understands that the owners of Tahorakuri A1, Section 1 will wish to preserve the present status of the roadway, vested in themselves and providing access to the urupa, marae, ngawha and fertility rock, so as to maintain control of that access.)
- That full compensation is paid for the land including potentially millable timber.

At the meeting now being called senior officers of the Ministry of Works and Development and New Zealand Electricity will be available to give you information about the construction and operation of the proposed station. Please feel free to question them on any matters which are not clear or are of concern to you.

In particular you will be advised how the Crown intends where possible to avoid disturbance of the local environment.

All matters resolved at the meeting of owners, and in particular the undertakings given by the Crown, will be publicly and permanently recorded by the Maori Land Court.

[signed]
George F. Gair
MINISTER OF ENERGY

At about the same time the owners received a notice sent out by Taupo County Council calling for objections to a 'Ministerial Requirement,' dated 6 November 1978, for a designation of the same lands in the Taupo County District Scheme as 'Required for the Generation of Electricity' under s.118 of the Town and Country Planning Act 1977. This requirement and the subsequent hearing of objections are outlined in the next chapter. However, these official notices forced many owners into the realisation that there was a real threat they may lose their lands.

On Saturday 11 November 1978 over 150 owners crammed into the meeting house at Te Ohaaki Marae for the meeting of owners called by the Maori Land Court. One of the Court staff chaired the meeting and three others, plus the District Officer Department of Maori Affairs, Rotorua, representing the Maori Trustee. Also in attendance were 11 officials from Electricity Division Ministry of Energy and Ministry of Works, from Wellington head offices, Hamilton offices, and MWD Wairakei. The formal part of the meeting consisted of a roll call of shareholders in each block to determine whether a quorum of 75 percent of shareholding in each was present, as required in s.309 (6B) of the Maori Affairs Act 1953 when any resolution to sell is to be considered by a meeting of owners. In every case, despite the large numbers present, there was no quorum for any of the blocks and so no resolution could be put to the meeting. The meeting was then opened up for informal discussion and questioning of the officials present. The following lengthy extract from the minutes of the meeting is reproduced in full to indicate how the project was presented to local people and the kind of questions they raised:

> Mr P.W. Blakely, General Manager, New Zealand Electricity Department, then addressed the meeting on the Government's energy policy and the need for the station. He outlined the policy of the electricity division of the Ministry of Energy which was to make sure that the people of New Zealand had an adequate and reliable supply of electricity. He went on to outline the importance of electricity and also the importance of geothermal electricity. He stated that the Wairakei Geothermal Power Station had been now operating for 20 years and was producing 5% of New Zealand's electricity needs. He also stated that investigations had been carried out in the thermal areas of the North Island over a period of some years to decide which were the most suitable as sites for power stations to follow Wairakei and it was found that the Ohaki area was the most suitable site for the next station. He stated that the supply of steam has been approved and the Planning Committee has recommended the construction of a station to be called Ohaki, to come into service in six years' time i.e. in October 1984 and reaching an output of 80 megawatts by April 1985. He stated that after a testing period of about 5 years it would be decided whether the size of the station could be increased, probably to about a capacity of Wairakei. He stated that the reason why they had come today was to tell the owners something about their proposals and to seek their agreement to the sale of the land to enable them to build and operate the station.
>
> He also introduced to the owners each member of the official party and stated their designation and also outlined their functions and stated they were there to answer any questions that the owners might have.
>
> Mr Basil Stilwell, a Geothermal Development Engineer with the Ministry of Works and Development, Wairakei, explained with the aid of a map, which showed the location of the Broadlands field in relation to the other geothermal fields in the area

and also produced a map showing in detail the proposals for the Broadlands field. He then went on to explain the brief history of the Broadlands field and stated that they first started investigating this field in 1966 and that there had been several meetings of owners to explain to the owners the proposals and to keep the owners informed as to the progress of the geothermal investigations. The last one had been in June 1976 with the Advisory Trustees when they had discussed details of an open air pool and supply of hot water for washing. He stated that the reason why the owners had been called together today was they were now ready to start the scheme and that construction could start in about 2 years. He stated that there had been a lot of intensive studies and design work carried out by D.S.I.R. scientists and engineers which has resulted in the scheme which is being presented to the meeting. He then outlined to the meeting the extent of the geothermal field, which stretches from State Highway 5 across the river to the Broadlands road. This field was split by the Waikato River and included in the plans were the construction of a new highway to link State Highway 5 to the Broadlands Road. This would also involve the construction of a new bridge across the Waikato River, and this would facilitate movement from both sides of the river.

He explained that most of the potential exists on the Ohaki side of the Waikato River and that the Ohaki power project was very different from the Wairakei project, in that it involved a scheme to inject the geothermal water back into the ground, after the steam had been used to drive the turbines. This proposal would be of advantage for several reasons;

1. It would prevent unnecessary fogging because there would be very little steam released into the air and there would be an almost complete absence of steam from the bore field.
2. It would also help to maintain the water levels in the Ngawhas.
3. It would stop subsidence of the ground.

He also stated that the power station would be sited on a terrace about 180 feet above the Marae and that this was the only place where there was a suitable foundation. He then gave the following details for the power station:

It would be 90 feet wide by 250 feet long and 80 feet high, the cooling towers which would be natural draft towers, would be 230-240 feet high and the power station would have a capacity of producing 150 megawatts. Development would be in 2 stages, the first being of 80-100 megawatts which is programmed for completion in 1985 with further development going on until 1992-1995.

He stated that it was hoped to start construction about this time next year. He stated that with regard to the question of noise, that the owners and the users of the Marae would have to live with it during the construction and testing stage, but there would be not much noise close to the Marae once the station was operating and that the area would be relatively free from noise.

He explained that the injection system would work on a closed circuit system, with the water being injected back into the ground from whence it came. In this system, the flow from the wells is piped to several flash plants where steam is separated and transmitted through pipes to a power station on the edge of the forest approximately

2000m to the south west. The water which is separated from the steam is pumped along other pipe lines to points around the field where it is injected back into the deep reservoir from whence it came to be reheated. He also stated that it was anticipated to inject water into the ground below the present surface of the ngawha (Ohaki Pool) and it is hoped that this would raise the level of the pool. He said that there would be a certain amount of subsidence as the field moves into production and they did not know at this stage how much it would be but it would not affect this area to any great extent. He also stated that the Crown was prepared to ensure that:

1. Areas needed during construction of the station but not essential for its operation would be revested in the owners should they wish.
2. Areas of special significance, such as the marae, the urupa, the ngawha and the fertility rock, will be screened by suitable fencing and planting, with adequate access thereto secured by road or roadway order.
3. That operational noise levels will be kept as low as practicable.
4. That every effort be made to ensure that any benefits arising from operation of the station are available to the marae, provision of heating water, etc., are examples.
5. That when the part of Ohaki Road within the proposed site is closed, alternative roading will be provided. (The Crown understands that the owners of Tahorakuri A1 Section 1 wish to preserve the present status of the roadway, vested in themselves, and providing access to the urupa, marae, ngawha and fertility rock, so as to maintain control of that access.)
6. That full compensation is paid for the land including potentially millable timber.

William Tredegar Hall then asked what impact these proposals would have on the environment, for example, how has the earth's crust at Wairakei stood up to any erosion and what effect would the steam and water being drawn off at Ohaki have on the ground level?

Mr Stilwell answered that there had been a measure of subsidence on the Wairakei field but there had been no bad effects. He stated that they were not aware that any changes had taken place so far as erosion or crumbling was concerned and that there had been no effect on land at Taupo or the outskirts of Taupo.

William Tredegar Hall then asked if there was any other suitable area for the location of a power station between Ohaki and Taupo.

Mr Stilwell explained that they had looked at many sites in the area and it was a choice between Tauhara and Broadlands but that Broadlands was the most promising and had the most potential.

William Tredegar Hall then asked how extensive were the tests that were carried out around Mount Tauhara and were these the same type of tests that were carried out at Ohaki?

Mr Stilwell replied that the field around Mount Tauhara was basically connected with the Wairakei field and that if full-scale production were carried out on that field it may have some detrimental effect upon the Wairakei field. However, at Ohaki they

do not have the same problems because this field is not connected in any way with Wairakei.

William Tredegar Hall then asked if there was potential at the field around Mount Tauhara for any development and did the Ministry of Works have plans for future development of that?

Mr Stilwell replied that there was potential there and it was hoped in the future to develop that field, provided that they could get over any problems that would be associated with the Wairakei field.

Tutanekai Kinita then asked what the difference between Ohaki and Broadlands was. He said he had heard it referred to as both Broadlands and Ohaki.

Mr Stilwell replied that the name of the overall field was the Broadlands Geothermal Field but the area where the power station was situated was the Ohaki area and this is how it became named as the Ohaki Power Station.

Queenie King then asked Mr Stilwell if there were any minerals under the ground and what benefit would the owners have or derive from these minerals.

Mr Stilwell replied that there may well be small quantities of minerals under the ground but the problem was how to mine them. He stated that he did not know of any effective method of mining minerals in a geothermal area.

In answer to another question from an owner, whose name we did not get, about what potential did Waiotapu have as a geothermal power station and why that area was not looked at, Mr Stilwell stated that any draw off of geothermal steam from that area would affect the tourist industry and the geysers there and for that reason it was not considered.

Rae Reweti asked whether or not the Ministry of Works intended to build houses at Ohaki for the workers and the staff involved in the operating and the running of the power station.

Mr Stanley Wong, Principal Power Development Engineer with the New Zealand Electricity Department, stated that the staff involved in the construction of the power station would be housed at Taupo and the staff involved in the operation and running of the station would be housed in existing housing at Wairakei. He stated they did not intend to build a power village at Ohaki.

Mr Henry Bird asked why did they need such a large area, 450 ha (1,110 acres) of Maori land for their power station.

Mr Barry Denton, Project Engineer for the Ministry of Works at Wairakei, replied that the heat was right throughout the whole area. He said that heat could not be taken from one area or else it would go cold too quickly and as a consequence would run out of steam. By taking a small amount from a large area, would thus ensure an adequate future supply of steam.

Mr Tutere Rehu asked what did the Ministry of Works intend to do about the resiting of the meeting house?

Mr Denton replied that this was a matter for the people themselves to decide and not the Ministry of Works. He also stated that there would not be any noise problem or fog problems. He did state, however, that there would be a need to drill test wells from time to time and that while these test wells were being drilled there would be a noise problem for short periods of time and this could be unacceptable to the users of the marae. He also stated that if they wanted to move the marae, the Ministry of Works would be prepared to help them but that was entirely up to the people to decide. With regard to the question of subsidence, he stated that the water levels will go down until the water flow is put back into the ground but he did state that reinjecting the water into the ground will cut the level of subsidence. He stated that when water is taken out of the ground, the ground will settle and that there is bound to be some subsidence in the area but that it would not affect the marae for a long time.

Huatahi Wi Koihika asked what was going to happen to Tahorakuri A1 Section 35?

Mr Denton replied that the four blocks were being considered as one area and that parts of them would be required to build the power station on. Parts would be required for construction purposes and parts would be required for areas for the steam to be drawn off. He stated that any areas that were not required once the power station had been built, could be revested in the owners. One problem that they had at the present time was that they did not know where to reinject the water until all of the tests were carried out and the power station was completed. He stated that it may be possible to return parts of Section 35 that were not used.

Mr William Tredegar Hall stated that he thought the prices offered by the Crown for the purchase of these sections were very unrealistic and far too low and he asked on what basis the prices offered were arrived at?

Mr Gary Grant, Assistant Director of Property Services, Ministry of Works, Wellington, explained that the valuations shown on the applications were obtained from the Government Valuation Department. He stated that these valuations were merely a starting point for negotiation and that the owners were quite free to get a registered valuer to value these sections and give a figure which they considered to be a more realistic figure.

Wikitoria Lydia O'Leary asked, can the Ministry of Works give an assurance that the people, would be notified when test drilling starts in the area?

Mr Denton stated that they could give this assurance and he also stated that they would not be drilling in any of the reserves.

At this point the meeting adjourned for lunch at 1.45 p.m.

The Chairman stated that the owners should hear the rest of the details which the Ministry of Works and Development and the Electricity Department have concerning these blocks and then after they have left the meeting can discuss these proposals amongst themselves.

The owners at this stage then raised the possibility of having the blocks vested in trustees under Section 438 to represent the owners and negotiate with the Crown.

Mr Blackie Tanirau stated that these blocks were already vested in the Maori Trustee under Section 438 and that he himself was one of the Advisory Trustees.

Mr C. A. Roberts, District Officer, [Department of Maori Affairs, Rotorua], stated that the blocks were vested in the Maori Trustee under section 438 with the specific purpose for geothermal exploration and that there was no provision in the Trust Order to negotiate for taking for power station works and that the best idea would be for the owners to elect their own Trustees and form a new Trust.

Mr Henry Bird stated that he would like to have a further meeting called in Rotorua for the owners to discuss this.

The Chairman pointed out to Mr Bird and the owners present that it would be a very hard job to get such a wide representation of owners as there were present today. He stated that from experience, when matters like this had been left for another meeting to be called, the turn out at that further meeting had been much less than what there was previously and for that reason the owners should finalise things today while they had such a big representation.

Huatahi Wi Koihika said there was no doubt in his mind that this area would ultimately be taken for power station purposes and the question for the owners today to settle, was, how much is going to be paid? He stated he would like this to be put into the hands of the Maori Trustee.

William Tredegar Hall said that they should hear out what the Government Officials have to say first and then settle the trustee problem.

Mr Neil Watson District Solicitor for the Ministry of Works, Hamilton, then explained to the meeting the procedure under the Town and Country Planning Act 1977 for designating the proposed power station in the Taupo County District Planning Scheme. He stated that the owners would, within the next fortnight, receive a notice from the Council pointing out the proposals to alter the District Planning Scheme and that the owners had a right to object and his purpose for being at the meeting was to just point this out to them and let them know the full details.

Kurupai Whata then pointed out to the Ministry of Works and Development officials that they did not have the main Urupa shown on their plan. She stated that there were ten bodies buried on the ridge above the Ngawha. She stated that this is not the Urupa that is shown on the plan for Tahorakuri A1 section 1. That is the new Urupa but that the one she is referring to is the old Urupa.

Mr Denton replied that if they could be shown the exact location of this Urupa on the ground, they would fence it off and if it was in a particularly bad place so far as siting of the power station is concerned, that they would come back to the Marae Committee and have discussions with them before they did anything further.

Mr Blackie Tanirau stated that he was one of the Advisory Trustees and so far as this burial ground was concerned, that a survey had taken place to have this Urupa defined. He had made a point of keeping in touch with the elders, Teddy Mihinui and Raupare Werahiko and they had pointed out its location. He thought that this Urupa had already been fenced. He then went on to say that what the people wanted is a long term lease rather than sell their ancestral lands. They wanted to retain the land in Maori ownership but proceed with the Power Station.

Mr P. M. Blakeley stated that he could not give a definite statement regarding this aspect but this would be a matter for the Government officials to discuss with the trustees who would be the elected representatives of the owners.

Mr Gary Grant then stated that it was Government Policy to own the land on which a Public Work was situated. He stated there were three options open to the Government:

1. To purchase the land outright.
2. To exchange the land with other Crown land in the vicinity.
3. To take the land under the Public Works Act.

He did point out however, that the land which was not required for the permanent works, that is, the building of the power station and the siting of the natural draft cooling towers, could be leased from the owners.

Peter Kapua stated that it appeared there would be no way in which the owners could stop the Government from taking the land and he thought that any valuation that a price was worked out on, should include the energy under the land.

Mr Gary Grant pointed out that minerals under the ground belonged to the Crown and the Crown cannot pay a royalty for any resources under the ground.

Pouwhare Te Maipi stated to the meeting that he was present at the meeting as a proxy holder for one of the owners and not as an official from the Maori Affairs Department. He pointed out to the meeting that people in Rotorua have the use and benefit value wise, of geothermal resources which are under their sections and asked why the same thing could not apply in this case at Ohaki.

Mr Gary Grant replied that the value was based on what could be obtained on the open market and also what somebody else other than the Crown can do with the resources that are under the ground; in this case, only the Crown can derive any benefit from the steam that is under the ground.

Mr Peter Kapua then asked will the Crown take the land compulsorily under the Public Works Act.

Mr Gary Grant replied that only the Minister of Works can do that and that the Crown would be very reluctant in this case to do such a thing. He stated that he was confident that if the Crown had trustees to deal with, that an agreement could be reached between the trustees and the Crown and that they would not have to resort to taking the land under the Public Works Act.

Tui Pook then asked whether or not the Power Station being sited in the Ohaki area would have any effect on the valuation of the surrounding land, in other words, would the land in the vicinity of the Power Station increase in value as a result of the Power Station being situated there.

Mr Gary Grant replied that he had no idea of this but that it is possible with better roading and access, that the values could increase. He also pointed out that at the same time, the rates for the land could increase.

Pouwhare Te Maipi then pointed out that the Crown had indicated that areas needed during construction of the station but not essential in its operation, would be revested in the owners, and asked upon what value that area would be returned.

Mr Grant stated that the area to be returned would be returned on its then value and pointed out that perhaps the best solution would be to acquire the essential area which is required for the construction and siting of the Power Station and to lease the rest of the area required.

Mrs Wikitoria Lydia O'Leary stated that it was obvious that they needed trustees to handle these matters on behalf of the owners and that these trustees should be knowledgeable persons who know what they are doing and that it was evident that these trustees should be appointed as soon as possible.

Mr William Tredegar Hall stated that it appeared to him that every big project that the Government comes up with, the Maoris seem to get in the road but he was pleased to hear that the Government Officials present at the meeting today, had given the owners a guarantee that the final settlement in this case, was open for negotiation.

At this point, the owners had no further questions of the Government Officials and Mr Blakeley then thanked the owners for their honest and frank discussion and he together with all other members of the applicant's party, left the meeting at 3.45 p.m.

Blackie Tanirau then introduced to the meeting Mrs Ainsley McLachlan a solicitor whom he had engaged to act on behalf of the owners.

Mrs Ainsley McLachlan then produced to the meeting the Environmental Report and stated that she had come along today to answer any legal questions that the owners may have. She stated that due to the complexity of the matters involved in these applications that the owners should have every safeguard and know exactly what is involved and this is why she was approached by Mr Tanirau to act on behalf of the owners. She also stated that it was much easier for the Government Departments to negotiate with the owners' representatives rather than call meetings of owners every time something needed to be done.

At this stage of the meeting it was evident that the owners were keen to have the blocks vested in trustees to act on behalf of all the owners in the blocks concerned.

The Chairman then pointed out to the meeting that if the owners want trustees appointed these trustees would be the owners' representatives and they would need to be capable persons and able to attend meetings of the trustees. He pointed out that the

trustees did not necessarily have to be owners. He also pointed out to the meeting the functions of the trustees would be determined by the Court, by way of an order setting out the terms of the trust, which could include power to negotiate with the various Government Departments in order to reach a settlement. He also pointed out that the trustees elected would be the representatives for all of the owners of the four blocks.

Mrs Wikitoria Lydia O'Leary then asked if the bigger blocks could have a bigger representation of the trustees?

The Chairman explained that Tahorakuri A1 Section 1 was the biggest block and most of the owners in that block were also owners in the other three blocks involved and therefore the trustees that were elected would be a fair representation of the owners in all blocks.

At this point the meeting moved into a discussion of the kind of trustees required and a number of nominations were made from the floor. The District Officer, Department of Maori Affairs, suggested that all ten names should be submitted to the Court which would make the final decision:

All of the owners present agreed to this.

The Chairman then explained to the meeting that because there was no quorum these applications must now be referred to the Waiariki Maori Land Advisory Committee in terms of Section 37 of the Maori Affairs Amendment Act 1974. He stated that a full report of these meetings would be made to the Chief Judge and representations made to the Court to see if the persons so elected as trustees today could be appointed under section 438/53. He stated that in terms of the owners wishes the Deputy Registrar would make any application to the Court on behalf of the owners that were required.

The meeting was unanimous in its decision that the trustees so elected act on behalf of the owners.

The meeting then proceeded to discuss the course of action for the trustees.

William Tredegar Hall said that he wanted to be quite clear in his mind that the trustees so elected were representatives of all the blocks as one unit and not just each for their own block.

The Chairman explained that should these persons elected as trustees today be appointed by the Court, they would be the representatives of all the blocks and that they would be representing the owners of all the blocks as one unit.

Blackie Tanirau then addressed the meeting and spoke about re-locating the marae and he said that the Ministry of Works would bear the cost of re-locating the marae and finding an alternative site for them. He also stated that in his mind re-location of the marae was necessary as at times the noise would become unbearable and that the owners should take advantage of the Ministry of Works offer and have the marae re-located. He also stated that he had consultation with the elders in the area and mentioned in particular Mrs Raupare Werahiko who is 98 and Mr Ted Mihinui and Kurupai Whata and stated that they were definitely against sale but preferred to lease

on a long term basis. He also stated that he was only attending the meetings of Advisory Trustees….

William Tredegar Hall thanked the owners for putting their confidence in him in electing him as a trustee and stated that he realised the burden of responsibility that had been placed upon him and that he would not take this duty lightly. He stated that the turangawaewae must remain the first and most important consideration in any negotiations and that they must keep their lands.

Wikitoria Lydia O'Leary stated that she endorsed entirely what Mr Hall had just said about the land and said that she did not want to sell the land but to negotiate so they can keep it.

Mrs Ruiha October spoke for herself and her 4 brothers and her family and said that she did not want the meeting house shifted from where it is located now. She stated that several of her close relatives were buried behind the meeting house.

Ruby Mackie stated that the land needed for the power station should be leased and that they do not want the meeting house moved.

Rangimarie Ngamotu stated that when the Ohakuri Power Station was built at Orakei Korako that her parents had been forced to leave their home at Orakei Korako and were told that they would be given alternative accommodation in Taupo. She said that they were put into a Ministry of Works home for 7 years and were then forced out onto the street. She stated that she did not want to see the same thing happen here and for that reason it was vital that they did not shift the tipuna whare but to hold fast to their turangawaewae.

Blackie Tanirau stated that there seemed only one alternative left to the owners and that was to re-locate. He said that if they were going to stay they would have to put up with the noise, fog, etc. and that an alternative site would give them a much better location away from the noise, fog and irritation.

Eria Moke thought the Ministry of Works had done a lot of work on the marae and had installed a bath and steam cooking facilities but this work was not finished because of the uncertainty as to whether the marae would remain there or not. He stated that he did not want the meeting house to be moved and wanted the work on the facilities, already started to be completed.

Te Okahurangi MacIntyre stated that she was against moving the meeting house.

Mr Ted Mihinui also stated that he did not want the building to be moved.

Mrs Ainsley McLachlan stated that it was inevitable that noise, irritation and subsidence would affect the marae and suggested that provision could be made for an alternative site for the marae to shift to if the noise and irritation becomes unbearable in the future.

Eria Moke asked if the meeting house were to be moved who would pay the bill?

The Chairman said that this would be subject to negotiation between the Marae Committee and the Ministry of Works.

Rae Reweti then asked Mrs McLachlan whether or not parts of Tahorakuri A1 Section 1 which was gazetted a Maori Reservation could be taken under the Public Works Act.

Mrs McLachlan stated that under the present proceedings the Ministry of Works had no intention of taking the parts that were set aside as Maori Reservation and that before any land which is set aside as a Maori Reservation would be taken the designation of Maori Reservation would have to be removed by an Order of the Court and she said that it would be highly unlikely that this would ever happen because the weight of public opinion would go against it.

Mrs Kurupai Whata then raised the question of the urupas that were not marked.

The Chairman pointed out to her that they should get the urupas shown on a plan and have an application made to the Maori Land Court to have them set aside as a Maori Reservation.

Mr Blackie Tanirau then introduced to the meeting Mr Jack Ridley, the Labour Candidate for the Taupo Electorate and stated that Mr Ridley had been invited along to the meeting as an observer by the owners.

Mr Ridley briefly addressed the meeting and thanked them for their invitation to attend the meeting and stated that as an engineer who had been involved in many power projects he did not see any reason why provision could not be made for a long term lease. He went on to say that he could not see why Government policy could not be changed to allow for such a lease and if he were a member of Parliament he would take steps to see that this would be made possible. [Jack Ridley was elected MP for Taupo in the next election] Once again he thanked the owners for the opportunity of addressing them and withdrew from the meeting.

The owners then once again discussed the re-location of the meeting house and it appeared that the general consensus of opinion was that they did not want the meeting house to be shifted.

Mr Pouwhare Te Maipi then addressed the meeting and stated that the items such as re-location of the meeting house, payment of compensation etc., which the meeting was discussing should be handled by the trustees. He said that the owners should make these issues known to the trustees so that they can be taken into consideration in the negotiations.

He then stated to the meeting that he had been involved with the Huntly Power Project and he stated that the owners through negotiation had obtained very favourable compensation for their land. They had their marae [refurbished] and had a new dining hall built for them and he stated that the trustees would do well to look at that particular instance and apply the relevant arguments as applied there, in the negotiations in this case.

Mr Blackie Tanirau then stated that the elders of the marae had requested that if the lands were to be leased could there be some provision made for them to have an advance of 10 year's rent so they could enjoy some of the benefits during their lifetime.

The Chairman then asked the meeting how they felt with regard to exchanging their land required for the Power Station for an equivalent amount of Crown land elsewhere.

The owners unanimously rejected this idea.

The Chairman then asked the meeting whether or not they were in favour of the land being sold to the Crown.

The owners were unanimous in agreement that their land should not be sold.

The meeting was then asked by the Chairman that should there be any major decision by the trustees which the beneficial owners in the blocks concerned should be made aware of before such a decision is made, do the owners want a general meeting held for the matter to be put before all the owners for a decision.

From the discussion that ensued it was made known that the meeting unanimously agreed that the trustees' job should be to negotiate a lease to the Crown of all or parts of the land to the best advantage of the owners. That no power of sale or exchange be given. That any major decision concerning contentious issues such as the moving of the Meeting house should be a matter for all the owners and the tribal hapus to consider. That the trustees be assisted in any way by their solicitor Mrs McLachlan and any other qualified person.

At this stage the meeting appeared to be drawing to a close and the Chairman thanked the people responsible for the lunch and stated that the cost was, he had been informed, to be met by the Ministry of Works.

The Chairman then asked if any of the owners had any thing further to say and there being no further discussion he thanked the owners for their co-operation and declared the meeting closed at 6.00 p.m.

P R Hunt	W P Rika
Recording Officer	Chairman

The report by Court staff of the meeting of owners was considered by the Maori Land Court on 30 November 1978. The Court commented on the 'failure of meetings for want of quorum' which meant no resolution to sell could be put:

> This fact in itself is in no way to be taken as meaning that every owner who had notice of the meeting was personally present or represented thereat. It is quite usual practice for an owner who is opposed to the resolution, or who simply does not want himself counted for quorum purposes purposefully to absent himself from the meeting or to refuse to appoint a proxy to represent him thereat (Rotorua MB 191/248).

The Court noted that ten people had been elected as trustees to negotiate, but no specific application to that effect had yet been lodged. In the meantime, most of the land remained vested in the Maori Trustee. On 8 December 1978 the Court made an order following an earlier application by the Maori Trustee in 1976 to appoint seven Advisory Trustees, only two of whom were among the ten elected at the 11 November meeting (Rotorua MB 191/245-297). This action caused some confusion among the ten 'Provisional Trustees', as they called themselves, who had just been elected at the meeting of owners.

When a meeting of owners does not reach a quorum then no resolution can be passed, the meeting is adjourned sine die, and this is reported back to the Court. The next step, set out in s.315A of the Maori Affairs Act 1953, as amended in s.37 of the Maori Affairs Amendment Act 1974, was to refer the matter to the Waiariki District Maori Land Advisory Committee with all relevant information. This committee in s.315A(4):

> shall, after such consultation with the owners as is reasonably practicable, forthwith consider the matter and make in writing to the Minister [of Maori Affairs] such recommendations as it thinks fit as to the effective future use, management and alienation of the land.
> (5) The Minister may, after studying the recommendations of the Maori Land Advisory Committee, arrange for a proposal in respect of the land to be submitted to the Board of Maori Affairs, or may, if he thinks it necessary, direct the lodging of an appropriate application to the Court.

The meeting of owners in November 1978 delivered a clear message to Crown officials that they would never agree to sell the land, nor agree to an exchange for other land, but a lease negotiated with appropriate conditions would be acceptable. One of those conditions was that the marae should not be moved, and the urupa and other wahi tapu should be protected. There was little more the officials could do until the processes set out in s.315A had been complied with. The alternative was a proclamation to take the land under the Public Works Act but this was the late 1970s, after the Maori Land March in 1975 and other protests about the loss of Maori land, including the occupation of Bastion Point. Crown officials were understandably reluctant to pursue this course.

Te Ohaaki Marae and Ngawha: Above, the view of the Ohaaki Pool and Sinter terrace from the marae. Below, the view of the marae from the Waikato River, showing riverbank where hot springs were flooded by Lake Ohakuri

6. The Ministerial Requirement for a Designation

The Ohaaki geothermal power project was the first major public work to be subject to planning provisions set out in the Town and Country Planning Act 1977. A summary of how this new Act affected a proposed power project was set out in an appendix to the *Report of the Planning Committee on Electric Power Development*:

> The earlier Act which this one supersedes did not require major Crown developments to go through the designation and appeal process. The 1977 Act, however, requires the Crown to designate the public works before construction commences.
>
> The new Act sets out a number of procedures whereby Crown projects may obtain the required designation on the land involved.
>
> Normally it would be expected that the usual process of applying for a designation appropriate to the project would be carried out, with provision for objections to the application at the local authority level and appeals to be heard by the Planning Tribunal. In such cases the decision of the tribunal is final and binding on the Crown.
>
> If, however, the Minister considers that the issue is an exceptional one and the decision can be taken only by the Government, there is the alternative whereby after council hearings the Minister may refer the matter to the tribunal for an inquiry and recommendation. In this case the tribunal is required only to make a public report, but the final decision is that of the Minister.
>
> Where it is considered necessary to avoid the possibility of extended delays to a work, the Governor General by Order in Council may declare it to be in the national interest to authorise immediate construction.
>
> The matters to be covered at the hearing of any objections or appeals would include:
>
> (a) Whether the proposed work is reasonably necessary for achieving the objectives of the Minister;
> (b) Whether the site is suitable for the proposed work;
> (c) Economic, social, and environmental effects of the proposal.
>
> The 1977 Act widens the rights of objections and appeal. Under the water and soil legislation, however, only persons detrimentally affected can appeal to the Planning Tribunal (AJHR 1978, D-6B, pp.22-23).

The Water and Soil Conservation Act 1967 also applied at Ohaaki. Water rights applications lodged in November 1977 were considered by the Waikato Valley Authority in June 1978. Ngati Tahu did not become involved in this aspect of power station planning. The water rights subsequently granted by the Water Resources Council covered both the taking and reinjection of geothermal steam and water and the taking of Waikato River water for cooling, as well as conditions for disposal of storm water, drainage etc., all intended to prevent pollution of the Waikato River system. The WVA also imposed a requirement for monitoring and reporting on any ground subsidence, and any remedial work undertaken, as a result of extraction of geothermal steam or water. Under the Clean Air Act 1972 the power project was required to hold a clean air licence. This was renewed annually, but not required

before construction started, although design work had to meet requirements to receive a licence when the power station was commissioned.

The provisions for 'public works' constructed by the Crown were set out in s.118 of the Town and Country Planning Act 1977. The Minister of Works and Development was required to notify the relevant local authority (in this case both Taupo and Rotorua Counties as the boundary between them at Ohaaki was the Waikato River) of the nature of the proposed public work and the land affected, so that this could be designated in the district planning scheme. On 6 November 1978, the Minister issued his requirements to Taupo and Rotorua County Councils that a specific area be designated in the relevant district planning scheme as 'Required for the Generation of Electricity (Geothermal)'. On the west bank of the Waikato River this area included most of the Tahorakuri A1, Sections 1, 19, 32, 34 and 35 that MWD had attempted to purchase (Figure 5). At the meeting of owners on 11 November 1978, the District Solicitor from the MWD Hamilton office explained that owners would shortly receive a notice to this effect and outlined the procedures that would follow:

> What this simply means, is that the Crown has, in accordance with procedures contained in the Town and Country Planning Act 1977, required both the Taupo and Rotorua County Councils to alter their respective district planning maps by indicating, on those maps, that the land in both counties which is contained in the site, is intended to be used as a geothermal power station for the generation of electricity, and that the Council is formally advising you as affected landowners of the proposed alteration to its planning map. The notice that you will receive from the Council is, therefore, merely the first step in what is generally known as the 'designation procedure'. It is a procedure which the Crown must follow in planning for public works such as this. It ensures, firstly that the Council's planning map accurately shows all intended public works within the Council's area. Secondly, and more importantly, it ensures that both the Council, and affected land owners, have an opportunity to comment on and, if need be, object to the planning consequences of establishing the particular public work.
>
> To outline this procedure briefly:
>
> The Crown, represented by the Minister of Works and Development, requests the local Council to alter its planning scheme by designating land as being intended to be used for a particular public work. The Council then notifies all affected land owners as well as other affected bodies or persons, of what is proposed, all of which then have the right to comment to the Council and object to the designation. The Council in consequence makes recommendations to the Minister. Those recommendations may incorporate the views of the objectors, as well as those of the Council.
>
> The Minister considers these recommendations, and if he advises the Council that he does not accept them, then all affected parties, whether the owners of the land or otherwise, have a right to take the matter further, by appealing to what is now known as the Planning Tribunal. That Tribunal's decision is final, unless the Minister should decide to refer the matter to the Tribunal in the form of an inquiry under section 119 of the Town and Country Planning Act 1977.
>
> The designation procedure under that Act is designed to ensure that the planning consequences of a proposed public work, in respect of such things as protecting

> adjacent land from undue disturbance resulting from the construction and the operation of the work, as ensuring that existing road access is preserved, and that local cultural, historical or natural features in the vicinity are not unduly affected; that these consequences are open to public scrutiny.
>
> It is a procedure which is quite independent of negotiations to purchase the land, and has been intentionally delayed so that the opportunity could be taken through this meeting to explain in detail, to all assembled owners, as being the most directly concerned, what the Crown proposes, rather than that you should receive a formal notice in the mail relating to the designation procedure, with which many of you may be unfamiliar.

In mid November 1978 the owners received their notices from Taupo County Council advising them that submissions and objections had to be submitted to the County Clerk by 16 December 1978. It was at this stage that I became more formally involved with Ngati Tahu. I had already met Tete Mihinui and Blackie Tanirau in Rotorua earlier in the year when I was talking with Pouwhare Te Maipi about the Environmental Impact Audit. I recall the firm statement Blackie made that, if Ngati Tahu had their land taken under the Public Works Act, then so be it, but they did not want to be known as Ngati Tahu who sold their land. The 'Provisional Trustees' and other Ngati Tahu owners who lived in Rotorua had an informal meeting and out of that came a decision to ask me for help. At this time I had been seconded to the Centre for Maori Studies and Research at University of Waikato.

I prepared a submission and objection which outlined a history of the land, its ancestral importance over 15 generations of Ngati Tahu occupation, the significance of geothermal resources to Ngati Tahu and their strong desire to preserve the marae, papakainga and wahi tapu on site. I submitted this to the Taupo County Clerk on 8 December, with a covering letter in which I explained my status, and concern about the burden on Maori owners having to go through this planning process:

> I am very concerned that there has been so little time to consult with owners in the preparation of this document. In the week following receipt of public notification of the Ministerial Requirements, Wikitoria O'Leary approached Robert Mahuta, Director of the Centre for Maori Studies and Research, University of Waikato, for assistance. On Friday 24 November, two of the Provisional Trustees, Pare Hika and Wikitoria O'Leary, and Mrs O'Leary's sister, Mrs Mikaere, came to Hamilton and we discussed at some length the implications for the Te Ohaki Maori community of the construction of the Ohaki Geothermal Power Station. This was taken back to an informal meeting of such owners who could be present at Te Rau Aroha Marae, Rotorua, on Sunday 26 November. This meeting agreed that the Centre for Maori Studies and Research be asked to prepare a document outlining their objections to the Ministerial Requirement. A formal request was sent to the Director, Robert Mahuta and I prepared a draft version. On Thursday 30 November 1978, Robert Mahuta and I met with the Provisional Trustees, some of the Marae Trustees and a number of other owners, at Te Ohaki Marae. It was agreed by the meeting that the draft version be revised in the light of the discussions held there and submitted directly to you as it was not possible to arrange another meeting. It is not easy for these people to get time off work, and travel long distances to meetings as short notice, to say nothing of the costs involved, for many of them have low incomes and large families to support.

> Nor has there been sufficient time for us to talk with them and do all the field work that should be done in this community.
>
> The meeting of 30 November agreed that copies of these objections should be sent to the following: Ministers of Works, Energy, Environment, Maori Affairs, the four Maori Members of Parliament, the member for Taupo, the Chairman of the Parliamentary Select Committee on Maori Affairs, New Zealand Maori Council, Waiariki District Maori Council, Tuwharetoa Trust Board, Historic Places Trust. The meeting wished that these people be informed because of their interest in the situation but did not wish to seek wider publicity at this stage.

At the end of this letter I noted that Ngati Tahu wished to be heard at the ensuing hearing and that the trustees had offered to meet informally with the County Planner or other officers in preparation of their report for the hearing. I ended the letter with the comment: 'We are aware that this is a complex situation with a large number of owners, a sensitive situation in regard to Maori land, a new Town and Country Planning Act and the first time a power station has been the subject of designation procedures'. The County Planner, Peter Crawford, did accept the invitation to attend a meeting at Te Ohaaki Marae and was able to incorporate the Ngati Tahu owners' views in his report for the Council. At the end of the meeting, one of the provisional trustees, Bill Hall, spoke to thank him for coming to the marae to hear their concerns and commented that this was the first time any Taupo County Council officer had been prepared to come to the marae to listen to them. I had the impression at the time that local Maori felt the only interest the County had was getting their rates paid.

In early March 1979, before the hearing of objections to the Ministerial Requirement I wrote a letter to Kara Puketapu, the recently-appointed Secretary of Maori Affairs. I hoped to encourage a more pro-active approach from this department, particularly in giving us some support in Wellington toward shifting MWD policy away from taking land for public works. I was supported in this by my colleague in the Centre for Maori Studies and Research, John Rangihau, who was acting as an adviser to the Secretary. The following extract from my notes attached to this letter summarised the situation in early 1979:

> There are currently two procedures in train which affect Maori owners of land at Ohaki:
>
> i) the designation of the land for electricity generation (geothermal) purposes under Section 118 of the Town and Country Planning Act 1977
> ii) the application to the Land Court by the Ministry of Works and Development under the Maori Affairs Act to purchase the several Tahorakuri blocks within the area included in the designation in Taupo County.
>
> The Centre for Maori Studies and Research was approached by some of the owners late in 1978 for assistance. As a result, I prepared an objection on behalf of the trustees of the Maori Reserves and the "provisional trustees" elected at the meeting of owners called by the Waiariki Maori Land Court to consider the application of the Ministry of Works and Development to purchase their lands, namely parts of Tahorakuri A1 Section 1 (Ohaki Papakainga) and Sections 32, 34 and 35. The objection was lodged in December 1978 and the public hearing of objections by Taupo County is set for 26-27 March 1979. We have also been asked for our advice

on various matters concerned with acquisition of land, and I have discussed this with Mr Roberts, District Officer, Rotorua, and the Chief Judge, K. Gillanders Scott. I enclose copies of correspondence with relevant extracts from Rotorua Minute Books and a memo from P. R. Hunt, Section Officer Titles, to the Chief Judge summarising the title situation to date. I have asked Peter Crawford, planner for Taupo County, to send you copies of all documents relevant to the hearings on the designation of the lands at Ohaki, including all the objections and his report to, and draft recommendations of, Taupo County Council.

The situation now is that there are three sets of trustees for various purposes on the Tahorakuri blocks affected.

i) Trustees for the Maori Reserves (Section 439)
ii) Advisory Trustees (Section 438) for the lands vested in the Maori Trustee and currently leased to MWD
iii) 'Provisional Trustees', i.e. the people elected at the meeting of owners on 11 November 1978.

Because the owners' meetings did not achieve quorums, a report was sent by the Court to the Waiariki Land Advisory Committee which met in February and will meet again this month to complete their report for the Minister. Mr Roberts' opinion is that when this report goes through the various channels the matter will come back to the Court and on the application of either District Officer or Deputy Registrar, trustees for negotiating with the Crown would be appointed. None of the existing trustees are so empowered. There could be difficulties, because in the past in such situations Mr McIntyre did not act, considering this a matter for the owners. The Chief Judge has maintained that the legislation required the Minister to act and until he did so the Court could do nothing. As a result such reports were often left with the Maori Land Board. How Mr Couch will behave in this is not known. The Chief Judge in his letter to me maintains the onus is on the owners to make application to change the trustees. I am very reluctant to suggest this to them at this stage, and have said in meetings with them that it must all come back to the Court later. Since this does not affect the status of the provisional trustees as objectors under the Town and Country Planning Act 1977, the designation procedures and the hearing set by Taupo County Council for 26-27 March will go on regardless. The question of trustees can be delayed until after that to avoid further confusion in the owners' minds at this stage, but it may not be possible to delay the matter much longer as it is becoming something of an issue with some of them. I set out this concern in my letter to the Chief Judge, see also extract from Rotorua MB 191/244-252.

The question of acquisition of Maori land for a public work such as a power station in the national interest is important for it conflicts with the relationship of Maori people with ancestral land, a matter of national importance set out in Section 3(1)(g) of the Town and Country Planning Act 1977. There seems a strong case for the Maori Trustee in person, not just represented by the District Officer, becoming involved directly in both the hearing of the objections to the Ministerial Requirement for designation of the Tahorakuri lands and the application by the Ministry of Works to purchase these lands.

> On the designation hearings, the report of the Taupo County Council planner, Peter Crawford, has come out strongly in favour of leasing the land and making provision for a papakainga, among other things. Nevertheless, the presence of the Maori Trustee would be of considerable benefit, particularly as Ministry of Works and Electricity Division of Ministry of Energy are planning to send a strong contingent from Wellington to present their case to Taupo County Council. They expect to take at least the first day of the hearing doing this.
>
> On the question of acquisition of land it is current Ministry of Works and Development policy that where 'permanent facilities' are to be erected, then the Crown will acquire title to land. This is only a matter of policy for there seems to be no legal barrier to erecting structures on land held by other forms of tenure including leasehold. In resolving the conflict between two matters of national importance, namely the construction of a power station to pump electricity into the national grid, and the relationship with Maori ancestral land, the only solution appears to be to persuade the Ministry of Works to apply for a leasehold. The owners do not wish to sell or exchange their land. The only other option is for the Ministry of Works to use the Public Works Act to take the land but this is politically and socially undesirable and they are unlikely to want to do that.
>
> Some important precedents are likely to be set by this Ohaki Geothermal Power Project. This is the first time a public work of this scale has been subjected to the designation procedures of the Town and Country Planning Act 1977. In the past the Crown has not been bound by this Act or its predecessor. This will also be the first major test of Section 3(1)(g) of the new Act which sets out the relationship of the Maori people and their culture and traditions with their ancestral land. If the Ministry of Works and Development can be persuaded to lease this land to build a power station this will provide a very important precedent for other public works, and for government dealings with Maori land.

On 26 March 1979 a hearing of objections to the Ministerial Requirement was conducted by a combined panel of Taupo and Rotorua County Councils, chaired by J. M. Black, Chairman of Taupo County. A large number of Ngati Tahu people crammed themselves into the limited space left in the Taupo County Council meeting room after all the various government officials and witnesses and lawyers were seated. Jan Walker, District Solicitor for the Department of Maori Affairs, Rotorua, appeared for the Maori Trustee, and livened up the formal proceedings with a remark about noise levels affecting the marae as a problem about 'sleeping with a bore', a geothermal bore. When it came the turn of Ngati Tahu I asked that our kaumatua, Tete Mihinui, be allowed to introduce our submission with a mihi in Maori. He did this, and it was brief, consisting of a welcome to all the visitors from outside the district. He ended it with a rousing rendition of the haka, Ka mate, ka mate, joined in by all Ngati Tahu. I saw some of the officials visibly taken aback by this performance. Henry Bird of Murupara spoke next, in English about the ancestral connections of the land and how Ngatoroirangi had brought geothermal resources to Ohaaki. There was a minor incident when he was asked to take the oath, which he objected to, and did not accept the Chairman's invitation to attest, saying adamantly that he was there to speak on behalf of Ngati Tahu and therefore he had to be telling the truth. When I presented my submission after this no one asked me to take an oath. A copy of my statement on behalf of Ngati Tahu is in Appendix 3. The hearing ended late that day and so there was no need to take up the second day allocated. That night I stayed with other Ngati Tahu from out of town at the Pitiroi family marae at

Nukuhau, and the talk went on well into the night. Next morning we were all treated to a magnificent breakfast at the home of Blanche and Taxi Kapua on the shore of Lake Taupo at Waipahihi.

In due course the representatives of Rotorua District and Taupo County Councils completed their report on their hearing of objections to the Minister's Requirement for a designation of land for the Ohaaki Power Project, and sent their recommendations to the Minister of Works and Development. The Minister responded and on 3 July 1979 the Taupo County Clerk sent out a 'Notice of Ministerial Decision in respect of Council's Recommendation', as required in Regulation 40(6) of the Town and Country Planning Regulations 1978. This notice set out under a number of headings both the Council recommendations and the Minister's decision on each:

1. Historic Sites:

(a) Council's Recommendation:
That in respect of sites of historic or cultural or human importance to the Ohaki Maori Community –

(i) A final map identifying all sites be prepared in consultation with the Historic Places Trust and the Trustees of the Ohaki Marae (such a map to be completed within 12 months of this consent becoming operative, to be held as a confidential document by the Project Engineer for reference in respect of site work and not available to the public)

(ii) Where unidentified sites are disturbed during the course of project development that no further work take place on that site until consultations have taken place with the Chairman of the Trustees for the Ohaki Marae Reserve.

(b) Ministers' Decision:
I accept this condition in part –
Both paragraphs (i) and (ii) should ensure comprehensive protection of archaeological sites in the designated area by way of the widest possible consultation with the Maori owners and their agents appointed under the procedures of the Maori Affairs Act 1956.

In addition, uncertainties expressed at the hearing over the extent and significance of the archaeological deposits in the area require recognition. The dense vegetation covering the area has prohibited an accurate surface survey. Consequently there is the possibility of other archaeological deposits being identified as development work progresses. For these reasons it would be unwise to prepare a final map at this stage.

Accordingly I amend your Council's condition on the designation to read as follows:

That in respect of sites of historic or cultural or human importance to the Ohaki Maori Community –

(i) A map identifying all known archaeological sites be prepared in consultation with the New Zealand Historic Places Trust, the Trustees of the Ohaki Marae and such owners and/or agents as are duly appointed under the Maori Affairs Act 1956 [sic], to represent the owners of the particular block or partition. (Such a map to be completed within 12 months and to be held as a confidential

document by the Project Engineer for reference in respect of site work and not available to the public).

(ii) Where unidentified sites are disturbed during the course of project development that no further work take place on that site until consultations have taken place with the chairman of the Trustees for the Ohaki Marae Reserve and such owners and/or agents as are duly appointed under the Maori Affairs Act 1956 [sic] to represent the owners of the particular block or partition.

This was belated acceptance of the Ngati Tahu concerns that historic, cultural and archaeological sites had not been considered during the exploration phase of drilling geothermal wells and constructing access roads. Nor were such sites included in the *Environmental Impact Report* in 1977. The Director of the New Zealand Historic Places Trust sent a submission to the Commissioner for the Environment in February 1978 noting that the *Environmental Impact Report* 'makes no mention of, nor does it in any way provide for the protection of, the surviving evidence of the past human occupation of this area' (CFE 1978 Submission 20, p.1). He then pointed out that the Broadlands area was an important area of Maori settlement on the Waikato River, that had been long occupied, with important kainga at Orakei Korako, Mihi and Ohaaki, all river bank sites adjacent to geothermal areas. He also pointed out that there were only limited records of evidence of past occupation and 'a thorough field survey of the area for historical and archaeological sites' was required. Under the Historic Places Amendment Act 1975 it was obligatory for any person or organisation whose activities might damage such sites to obtain an authority from the Trust, which 'may impose conditions, including the requirement of a prior scientific investigation of the site' the cost to be recovered from the applicant.

Before the Audit was completed NZED advised the Commission for the Environment that it would 'support the Historic Places Trust in an archaeological survey of the area encompassed by the Broadlands Geothermal Development (CFE 1978, Appendix 1). At the Taupo hearing of the Ministerial Requirement for a Designation in 1979 an archaeological site survey by Tony Walton was tabled by NZE. The Senior Archaeologist of the New Zealand Historic Places Trust, Jim McKinlay, summarised this report, and concluded that because there had been limited time to conduct the survey, it was likely other sites might be discovered during construction, which should be reported to the Trust. In my submission at this hearing I stressed that Te Ohaaki was an old papakainga, there were unmarked burial sites protected by dense vegetation cover which might be exposed by construction. We did not want these publicised. I was concerned that the archaeological site survey (which we had not seen before the hearing) identified the location of skeletal remains on the site. Other recommendations included:

2. <u>Change of Designated Area</u>:

(a) Council's Recommendation:
That in respect of the boundaries of the designated area alterations be made as follows:

(i) Exclusion from the requirement of all that area between the Ngawha and the Marae.

(ii) Exclusion from the requirement of all that area between the Marae and the fertility rock bounded by the roadline shown on the requirement plan.

(b) Ministers' Decision:

(i) In view of the historical and cultural significance of the area to the Maori people I accept the condition that all the area between the Ngawha and the Marae be excluded from my requirement.

(ii) For the reasons given in (i) above I accept the condition that all the area between the Marae and the fertility rock bounded by the road line shown on the requirement plan should be excluded from any requirement. The Council will be aware, however, that investigative drilling is proceeding outside the site which I have agreed should be designated at present. These investigations may identify extensions to the production field which could justify my issuing further requirements at a future date.

3. Site Stability Investigations:

(a) Council's Recommendation -
That the Minister undertake site investigations for the purposes of establishing the suitability of the land excluded from the requirement for the erection of five houses in that area excluded from the designation but including the Marae, particular regard being had for geothermal activity and land subsidence. An interim report on this matter is required by the Council within 12 months of this consent. (The Minister is advised that should the site be suitable then Taupo County would initiate a change to the zoning to create a Papakainga zone).

(b) Ministers' Decision:
Council's recommendation accepted without change.

Both these headings covered the Ngati Tahu request for papakainga area to be preserved around the marae, link the Ohaaki Pool and wahi tapu, and provide a Papakainga Zone for future housing needs. There were further recommendations:

4. Monitoring Environmental Changes:

(a) Council's Recommendation -
That the Minister monitor the effects of the project in respect of the following matters:

(i) Changes in land levels:
(ii) Discharge into the atmosphere:
(iii) Discharge into the catchment and waterways:
(iv) Noise levels (levels of noise on and adjacent to the Ohaki Marae to be limited to permit normal residential use and not restrict the use of the Marae).

And ensure that adequate steps are taken to ensure the health and welfare of the population of the Reporoa basin and more particular the population dwelling on lands adjoining the designated area. Information relating to the abovementioned monitored items to be made available to the public and the Council.

(b) Ministers' decision:
I accept paragraphs (i) and (iii) in so far as the Crown is already obliged to monitor changes in land levels and discharge into the catchment and waterways by the water rights granted under the Water and Soil Conservation

Act 1967. Paragraph (ii) is acceptable in so far as the Crown is obliged to monitor discharge into the atmosphere by the project's licence under the Clean Air Act 1972. In relation to paragraph (iv), it is the Crown'' intention to achieve the minimum noise levels reasonably possible for an undertaking of this type.

The information arising from the monitoring of these aspects will be made available to both the Rotorua District Council and Taupo County Council.

5. Protection of School Bus Route:

(a) Council's Recommendation -
That steps be taken to ensure continuous access for the maintenance of the school bus service.

(b) Ministers' Decision:
Council's recommendation accepted without change.

6. Study of Geothermal Energy Uses & Geothermal By-Products for Local Industry -

(a) Council's Recommendation -
That a research study be prepared prior to the completion of the Ohaki Power Station on the use of geothermal energy and geothermal by-products in local industry and an assessment of available financial support to establish such industry in the Reporoa Basin. Such a report being made available to the public.

(b) Ministers' Decision –
Council's recommendation accepted without change.

7. Power Corridors to Ohaki:

(a) Council's Recommendation -
That as a part of the designation the power corridors for high tension lines serving the scheme and distributing electricity be identified in both Rotorua and Taupo Counties. The Council to be advised of the siting of lines at the earliest opportunity and prior to erection.

(b) Ministers' Decision -
I do not accept this modification to the designation. Under section 64 of the Town and Country Planning Act 1977, transmission lines are permitted as a right in every zone. As yet the routes of the lines have not been decided. This will be done in consultation with the Nature Conservation Council and the routes will be the subject of an Environment Impact Assessment. The County Council will be advised of the routes at the earliest opportunity.

8. Landscaping & Preservation of Amenity:

(a) Council's Recommendation -
That in respect to landscaping and preservation of the amenity of the site and locality:

(i) A planted and landscaped area be established and maintained between the Marae and other reserves, and the proposed Geothermal Development to create a buffer and screen between the two areas.

(ii) Planting be undertaken near Hard Castle Lagoon to screen the development site in a manner described in the evidence of Mr. Elam, Chief Architect of the Power Division of the Ministry of Works and Development. Steps be undertaken by the Crown to ensure that such planting is retained in perpetuity.

(b) Ministers' Decision –

(i) I accept this condition.

(ii) I accept this condition in part. Landscape investigations undertaken since your council's hearings have indicated that such plantings may be more effective if they were established closer to Broadlands Road.

Accordingly I amend your council's condition to read as follows:

"Examine the possibility and desirability of establishing and maintaining planting near the Hard Castle Lagoon in a manner described in the evidence of the Chief Architect, Power Division, Ministry of Works & Development. Steps to be undertaken by the Crown to ensure that such planting is retained in perpetuity."

9. Council's Comments – Leasing, Crown Evidence & Power Lines:

(a) Council's Comments -
Finally but not part of the formal Town & Country Planning recommendations to the Minister the Taupo County Council recommends:

(i) That the Minister consider leasing from the owners the land which has been designated. It is the Council's view that such an action properly reflects the relationship between people and their land and significantly recognises the value of the resource contained within the land.

There were two other comments not part of the formal recommendations. One was to suggest that evidence be circulated at least 14 days prior to hearing. There were numerous complaints at the hearing about the large volume of evidence tabled at the hearing which meant no one could possibly digest it all and comment at the hearing. The other comment was to suggest that the power lines should be included in documents for a designation. The Minister's response to all these comments was: 'I have noted the three paragraphs included with your council's formal recommendation. These are being considered and will be introduced if possible'. While it was gratifying that most of Ngati Tahu concerns had been acknowledged in the recommendations accepted by the Minister, there was still no firm commitment by the Crown to lease the land required from Ngati Tahu.

In July 1979 I lodged an appeal with the Planning Tribunal on behalf of the Provisional Trustees and Marae Trustees. The various trustees were adamant that all avenues should be explored to prevent their lands being taken by the Crown. They did not see any dividing line between the jurisdiction of the Town and Country Planning Act and the Public Works Act. For them the primary planning issue was to retain their ancestral land, marae and wahi tapu. The appeal did not contest any of the specific recommendations of the Taupo County Council

accepted by the Minister. Rather it was a matter of reinforcing the idea that Maori tenure of their land was an integral part of their view of planning. I set this out in the notice of appeal:

> The grounds for this appeal are based on the "matters of national importance". Section 3 of the Town and Country Planning Act 1977, specifically:
>
> 3(1)(a) The conservation, protection and enhancement of the physical, cultural and social environment.
> 3(1)(g) The relationship of the Maori people and their culture and traditions with their ancestral land.
>
> We accept the Minister's decision as it stands, but we submit that the matter of the tenure of the land subject to the designation is a planning matter incorporated in the meaning and intent of Section 3(1)(g) and therefore also an integral part of the cultural and social environment described in Section 3(1)(a).
>
> We note that in determining an appeal against a Ministerial Requirement for a designation, the Tribunal shall under Section 118(8) Town and Country Planning Act 1977, have regard to:
>
> (a) Whether the proposed work is reasonably necessary for achieving the objectives of the Minister or local authority;
> (b) Whether the site is suitable for the proposed work; and
> (c) The economic, social and environmental effects of the proposal.
>
> With regard to (a) and (b), we have indicated that Ngati Tahu people are prepared to participate in the development of a geothermal power station and related scientific experimental programme on their lands, recognising that this must occur on the site of the geothermal energy resource beneath their lands and that such development of our indigenous energy resources is in the national interest. We are particularly concerned about the economic, social and environmental effects of the proposal and maintain that the tenure of the land is a central issue in assessing such effects, and is therefore a planning matter. The Ngati Tahu owners hold to the principle – Kia mau ki te whenua, hold onto the land. In doing so, they are expressing their desire to protect Maori values, Maori culture and tradition, and their turangawaewae, their place to stand on their ancestral land.
>
> We maintain that in the case of a public work to be constructed in the national interest on Maori land, the tenure of that land is a planning matter. We submit that in such a situation an undertaking to lease, or alternative form of tenure, which preserves the title, and therefore the mana of the land to the Maori owners, should be one of the conditions of the designation.

I was put under a lot of pressure by MWD counsel to withdraw the appeal. I responded that if MWD withdrew the applications to purchase the land from the Maori Land Court, I would ask the owners to consider withdrawing the appeal.

The appeal was eventually heard by the Planning Tribunal in Rotorua on 19 February 1980. The District Solicitor, Department of Maori Affairs in Rotorua, Jan Walker acted as counsel for Ngati Tahu. The Tribunal, after some initial legal argument, declined jurisdiction. There

was a large crowd of Ngati Tahu owners present as well as MOE and MWD officials and their counsel. After the formal proceedings were closed Judge Treadwell offered to talk informally with owners, and explained that, while he could not hear the case under the Town and Country Planning Act, there could be a further opportunity if a public works taking were implemented to hear objections under the Public Works Act. He also expressed the view informally that he hoped Crown officials would negotiate a solution satisfactory to Ngati Tahu owners. He promised to produce a written decision explaining why jurisdiction had to be declined. This was issued on 12 March 1980 and included the following argument:

> We are not prepared to accept that s.3(1)g by implication or otherwise is designed to convert an Act of Parliament concerned (inter alia) with land use into a vehicle for the preservation of rights of land ownership. The position appears clear.
>
> 1. A requirement results in a designation being placed on a district scheme.
>
> 2. Three basic results flow from this:
>   (a) The right of the land owner to make use of his land is restricted and consent of the designating authority is required to certain land uses.
>   (b) The owner has a corresponding right to require that his land be taken pursuant to the Public Works Act 1928 if his rights of land use are unduly restricted.
>   (c) Until either a taking order is made or the designating authority itself chooses to take action under the Public Works Act 1928 ownership remains unaffected but user rights are restricted.
>
> 3. In considering a designation the Tribunal (but not the council) may revoke the requirement and pursuant to the provisions of s.118(8)c matters contained in s.3 of the Act would be relevant. Revocation does not necessarily debar some designating authorities from continuing to exercise other statutory powers of acquisition which they may possess.
>
> 4. In the present case the Tribunal has not been invited to exercise powers of revocation.
>
> 5. Once the designation is included in the District Scheme for a proposed public work it then forms the basis for the next legal step of land acquisition.
>
> 6. Acquisition is implemented by means of the Public Works Act 1928 either by agreement or compulsory taking. A limited interest in the land may be acquired or a fee-simple interest.
>
> 7. Section 3(1)g cannot affect the statutory powers of acquisition under the Public Works Act 1928. This section commences:
>
>   3(1) In the preparation, implementation and administration of … district …. Schemes … the following matters which are declared to be of national importance shall in particular be recognised and provided for: …

The consequences of this wording is that the District Scheme when being prepared (and ultimately when operative) may contain certain provisions relating to those matters of National Importance. S.3 does not cloak the provisions so incorporated with any greater legal standing than as set forth in s.62(1) viz:

> Every provision of an operative District Scheme shall have the force and effect of a regulation in force under this Act.

In respect of "administration" this normally arises with applications (inter alia) under ss.72 and 74 (conditional uses and specified departures). The word "implementation" could include a provision in a District Scheme whereby a council or other authority has designated land for a certain purpose i.e. protection of a lake margin. This enables the councils to implement by way of land acquisition that matter of national importance. The vehicle for such implementation would be the Public Works Act 1928.

8. The example relating to "implementation: just given highlights the difficulty faced by the present appellants. Designation would be the preliminary step taken to pave the way for the exercise of statutory powers. It does not seek to prevent the exercise of those powers. In the present case the appellants are seeking to incorporate in a District Scheme a provision which will only have the force and effect of a regulation. They then argue that this provision can prevent the exercise of statutory powers given by another Act of Parliament. We cannot accept that proposition. The Town Planning Act 1977 is concerned with (inter alia) land use – the Public Works Act 1928 (inter alia) with land acquisition.

9. We are fortified in this view by the provisions of the Public Works Act 1928 s.22. This section provides a code governing the question of land acquisition. It enables an owner to object and enables the Tribunal to make a report and recommendation. That recommendation could recommend that acquisition of the fee-simple is not necessary to achieve the objectives of the Minister and a lesser land tenure would suffice. The Minister would not, however, be bound to follow such recommendations. We cannot accept that the Town and Country Planning Act 1977 would enable us to impose by way of condition something purporting to be binding on the Minister when our specific powers under the Public Works Act 1928 gives us no such determinative and binding jurisdiction.

We accordingly hold that we have no jurisdiction under the Town and Country Planning Act 1977 to allow the appeal which accordingly is formally dismissed.

This decision was later reported in *Tai Whati* (Fouhy 1983, pp. 217-218) and the editor added the following note to the summary of the case:

> The Minister of Works and Development in fact proceeded to negotiate for an appropriate lease and eventually a lease was concluded. The outcome would appear to create an important precedent, and raises a question as to whether the Public Works

Act itself might not provide for a compulsory lease, licence or easement alternative to the acquisition of the freehold in cases of this sort.

Such an amendment would also overcome the difficulty that owners have in raising funds to buy back land in the event of the land ceasing to be required for the purposes for which it was taken. (It is to be noted that s.436 of the Maori Affairs Act 1952 provides a mechanism for the return of Maori land acquired for public works by the Crown or a local authority.)

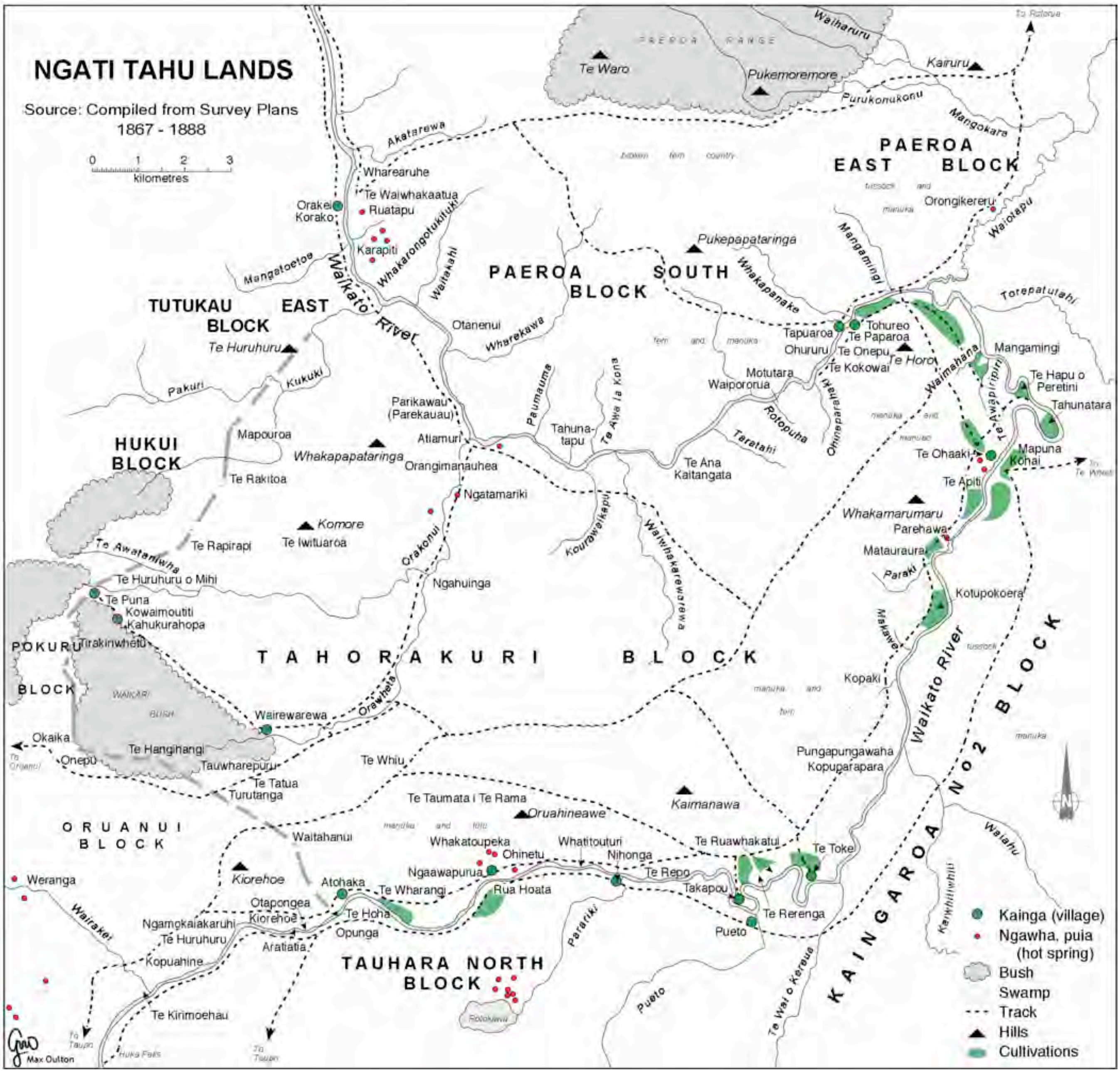

NGATI TAHU LANDS
Source: Compiled from Survey Plans
1867 - 1888
0 1 2 3
kilometres
PAEROA RANGE
Waiharuru
Te Waro
Pukemoremore
Kairuru
Purukonukonu
Mangokara
Akatarewa
broken fern country
PAEROA
EAST BLOCK
tussock and manuka
Orongikereru
Waiotapu
Wharearuhe
Te Waiwhakaatua
Orakei Korako
Ruatapu
Karapiti
Whakarongotukituki
Mangatoetoe
Waikato River
Weitakahi
PAEROA SOUTH BLOCK
Pukepapataringa
Mangamingi
Whakapanake
Torepatutahi
TUTUKAU EAST BLOCK
Te Huruhuru
Otanenui
Wharekawa
Tapuaroa
Tohureo
Te Paparoa
Ohururu
Te Onepu
Te Horo
Te Kokowai
Waimahana
Mangamingi
Te Hapu o Peretini
Tahunatara
Pakuri
Kukuki
Paumaume
Te Awa ia Kona
Tahuna-tapu
Motutara
Waipororua
Rotopuha
Ohineparaheki
Teratahi
fern and manuka
HUKUI BLOCK
Mapouroa
Parikawau (Parekauau)
Whakapapataringa
Atiamuri
Orangimanauhea
Te Ana Kaitangata
Te Ohaaki
Mapuna Kohai
To Te Whaiti
Te Apiti
Te Rakitoa
Ngatamariki
Whakamarumaru
Parehawa
Komore
Te Iwituaroa
Te Rapirapi
Te Awatariwha
Kourawaikapu
Waiwhakarewarewa
Matauraura
Paraki
Te Huruhuru o Mihi
Orakonui
Ngahuinga
Kotupokoera
Te Puna
Kowaimoutiti
Kahukurahopa
Tirakinwhetu
POKURU BLOCK
TAHORAKURI BLOCK
Makawe
Waikato River
KAINGAROA No 2 BLOCK
Kopaki
WAIKARI BUSH
Wairewarewa
Orawheta
manuka and fern
Okaika
Onepu
To Orakei
Te Hangihangi
Tauwharepuru
Te Whiu
Te Tatua
Turutanga
Pungapungawaha
Kopuparapara
Te Taumata i Te Rama
Oruahineawe
Kaimanawa
ORUANUI BLOCK
Waitahanui
manuka and toto
Whakatoupeka
Whatitouturi
Te Ruawhakatui
Te Toke
Ohinetu
Nihonga
Waiahu
Weranga
Kiorehoe
Atohaka
Ngaawapurua
Te Repo
Te Wharangi
Rua Hoata
Takapou
Otapongea
Te Hoha
Te Rerenga
Ngamokaiakaruhi
Kiorehoe
Opunga
Pueto
Te Huruhuru
Aratiatia
Pararki
Wairakei
Kopuahine
TAUHARA NORTH BLOCK
Te Kirimoehau
Rotokawa
Pueto
Te Wai o Kereua
To Taupo
Huka Falls
Max Oulton
Kainga (village)
Ngawha, puia (hot spring)
Bush
Swamp
Track
Hills
Cultivations

Figure 6.

7. Appointment of the Ngati Tahu Tribal Trust 1980

In the preparation of my submissions on the Ohaaki Power Project, I spoke to kaumatua and also delved into the old minute books of the Maori Land Court and other published sources. In chapter 11 I describe the ngawha, the surface geothermal activity on the site. I begin this chapter with a brief history of the land up to the time the Ngati Tahu Tribal Trust was appointed in February 1980.

The full name of the marae is Te Ohaaki o Ngatoroirangi, the gift or legacy of Ngatoroirangi, who caused the geothermal activity to be brought to the region. Another meaning of the name Te Ohaaki signifies the pact or agreement between the two brothers, Matarae, the elder, and Te Rama. This agreement established that in the area to the north of the Waikato River, Matarae took precedence in speaking on the marae, while south of the river Te Rama was the chief speaker in marae ceremonial. This arrangement still stands in the names of the meeting houses at two other Ngati Tahu marae: Matarae near Reporoa to the north, and Te Rama at Te Toke to the south. These two brothers were the children of Tamamate, son of Rahurahu of Ngati Raukawa, and Whakarawataua, whose marriage cemented peace between Ngati Raukawa and Ngati Tahu. The other Ngati Tahu marae in this area is at Waimahana and the meeting house is Rahurahu, the name which was moved from Orakei Korako in the late 1890s.

The Tahorakuri Block comprised all the land within the great bend of the Waikato River from Aratiatia to a point about 5 kilometres upstream from Orakei Korako (Figure 6). The title was first investigated by the Native Land Court in 1887 (Taupo Minute Book 6/289-355 and 7/30-31). There was some debate about the location of the western boundary of the block but all counter claimants acknowledged the claims of Ngati Tahu. The judgment in this case dismissed the counter claims and awarded the whole block to Ngati Tahu on the basis of their long occupation of this land. In 1899, in a lengthy hearing, an application for partition was heard and the Tahorakuri Block was divided into four sections: Waimahana, Te Ohaaki and Kaimanawa in the east and Waikari in the south-west corner (Taupo Minute Book 12/264-382 and 13/1-223). It was agreed that all owners in each section should have equal shares.

Across the Waikato River, on the east bank the Ngati Tahu lands on the plains stretching from Reporoa through Broadlands were purchased by European land speculators in the 1880s. The several large estates passed through various hands with little development until well into the 1900s. In 1907, E.E. Vaile took up over 22,000 hectares on the east bank opposite Te Ohaaki and spent the next 25 years developing the Broadlands Estate (Vaile 1939). In 1912 the area of Tahunatara (now called Hardcastle Lagoon) was added to the Broadlands Estate following a boundary dispute occasioned by a change in the course of the Waikato River which formed the boundary between the Broadlands Estate and Ngati Tahu lands at Te Ohaaki.

The earliest survey plan of Te Ohaaki was dated 1888 and showed a cluster of buildings in the papakainga between the Ohaaki Pool and the Waikato River. By 1905 there was a road connection through the area. Figure 7, Te Ohaaki in 1930, is based on the series of survey plans (ML 5601/1-8, 1888-1905 and ML 15116/1-4, 1930, and Field Book No. 4294, 1931) produced for various Native Land Court proceedings. Vaile's book, *Pioneering the Pumice,* included comments on Maori settlement in the area:

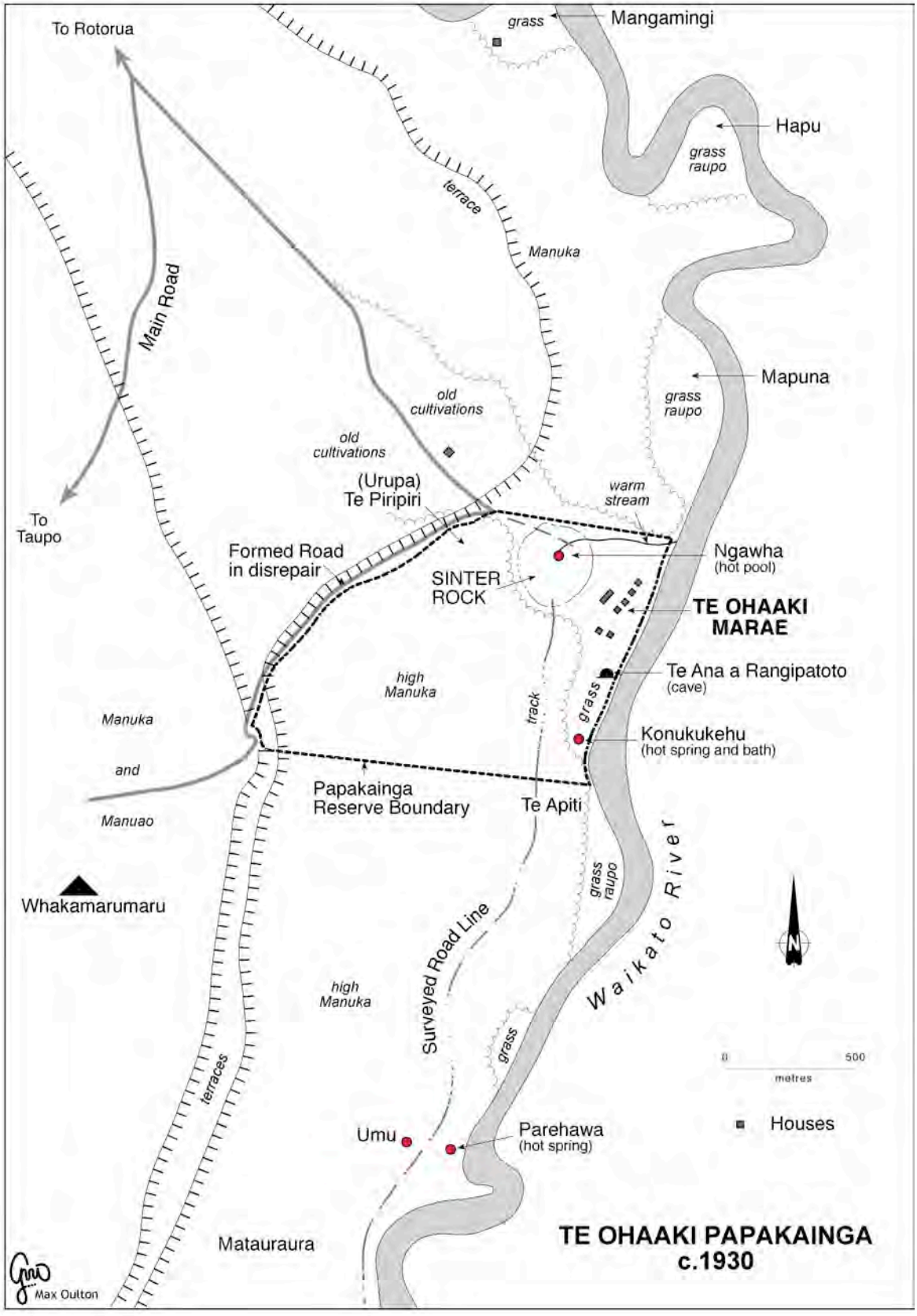

To Rotorua
grass
Mangamingi
Hapu
grass raupo
terrace
Manuka
Main Road
Mapuna
grass raupo
old cultivations
old cultivations
(Urupa) Te Piripiri
warm stream
To Taupo
Formed Road in disrepair
SINTER ROCK
Ngawha (hot pool)
TE OHAAKI MARAE
Te Ana a Rangipatoto (cave)
high Manuka
track
grass
Konukukehu (hot spring and bath)
Manuka and Manuao
Papakainga Reserve Boundary
Te Apiti
Whakamarumaru
grass raupo
Waikato River
Surveyed Road Line
high Manuka
grass
terraces
0
500
metres
Houses
Umu
Parehawa (hot spring)
Matauraura
TE OHAAKI PAPAKAINGA c.1930
Max Oulton

Figure 7.

> There is not much evidence of a Maori population resident upon Broadlands, but in several places there still exist ditches and banks indicating where their cultivations had been fenced off from wild pigs. Tahunatara used to yield great crops of potatoes and the large number of potato pits in the banks surrounding "The Island" provide proof of the former fertility of this plot of land. The Maoris say that in the olden times it was dry, but the growth of weeds in the bed of the Waikato and consequent silting up with drift pumice subjected it to floods and rendered it unsafe for crops…
>
> The head settlement of the Ngatitahu from ancient times was Ohaki, just across the Waikato River from my homestead paddocks. At one time this kainga contained thirty inhabited houses – now [late 1930s] it seldom has more than three or four, sometimes only one. The rest have disappeared or are empty. This does not mean that the numbers of the hapu have diminished. The individual Maori instead of having one large piece of land has little pieces here, there and everywhere within the tribal territory. So he moves about from kainga to kainga as the means of subsistence (wages, timber for sale, fish, rabbits, pigs and other wild animals) offer (Vaile 1939, pp. 51-52).

Ngati Tahu have always been a migratory people, but, as with many nomadic groups, there are certain places to which they return periodically because of a special significance attached to them. Te Ohaaki is one of these places. Hare Matenga, in presenting the claims of Ngati Tahu to the Tahorakuri Block in 1887 stated 'We are a travelling people, we have lived continuously on this land' (Taupo MB 6/351). Evidence was given to the Native Land Court in 1899 indicated that some Ngati Tahu 'were in the habit of going to Auckland to work for Europeans' (Taupo MB 12/279). Vaile (1939, p. 7) noted that when he arrived in 1907 there was 'a wandering population of Maoris, from fifty to one hundred all told, living sometimes in one village, sometimes in another'. This is probably an under-estimate of the Ngati Tahu population as the Native Land Court in 1899 recorded a list of 250 names of people who were awarded interests in the Tahorakuri Block (Taupo MB 13/216-223).

The main settlements of Ngati Tahu in the nineteenth century were at Orakei Korako and Te Ohaaki. In the late 1880s a number of Ngati Tahu who had been living at Tarawera returned to Te Ohaaki, following the eruption of 1886. Te Ohaaki emerged as the chief settlement. A new carved meeting house, Tahumatua, was erected in 1916. There were cultivations along the Waikato River on the river flats, from south of Te Toke to Waimahana. The main cultivation areas at Te Ohaaki were to the north-west and south of the marae, and at Te Apiti, Tahunatara and Mangamingi. There were several named fishing grounds and eel weirs in selected places on the river. In the swamps by the river, birds were snared. Near Te Ohaaki there were two raupo grounds, 'mahinga putere', at Mapuna and Te Hapu o Paretini. The raupo roots were dug up and baked in the hot ground for food, putere.

It was because of the special associations of this geothermal area and the papakainga that the land around Te Ohaaki was not sold. The year 1930 saw the beginning of a series of partition orders on the Tahorakuri A Block beginning with the division into A1 and A2. Much of the higher pumice lands of Tahorakuri A2, which had never been permanently occupied, were sold to Perpetual Forests Ltd. (later reorganised as N.Z. Forest Products Ltd.) and the area planted in pine trees to form the Tahorakuri Forest. A number of subsequent partitions were made on Tahorakuri A1 during the 1930s and 1940s. In 1932 a papakainga reserve at Te Ohaaki was established by the Native Land Court (Taupo MB 31/268-269 and 292-300). The following is extracted from these minutes:

Tahorakuri A No. 1 Partition Application
Tamatekapua te Raihi: It is suggested that the old papakainga area of 255 acres be cut out and awarded to all.
After a short discussion it was unanimously agreed that this decision be given effect to.
Order made to all owners – 210 in number – for an area of 255 acres to be called A No. 1A (Ohaki Papakainga Reserve).

This reserve was never gazetted as such, but comprises the present Tahorakuri A1 Section 1.

Since the 1930s, many Ngati Tahu drifted away from their home region in search of employment elsewhere. The last family left in 1975. In the late 1970s NZE and MWD engineers suggested the marae had been 'abandoned' because no one lived there. In 1978 Maori Land Court records listed nearly 600 people as owners of the relevant Tahorakuri A1 blocks:

Block	No.of Owners	Area	
A1 Sec. 1	517	245a.2r.20p.	99.4009 ha
A1 Sec.19	1	10a.1r.19p.	2.9500 ha
A1 Sec.32	140	69a.1r.18p.	28.0700 ha
A1 Sec.34	92	381a.0r.39p.	154.2838 ha
A1 Sec.35	82	487a.0r.03p.	197.0905 ha

Many of the owners in the papakainga block, Tahorakuri A1 Sec. 1, were also owners in the other blocks. An analysis of Maori Land Court records in March 1978 indicated the location of the owners in the five blocks (Figure 8).

Reporoa District	27
Rotorua – Ngongotaha	68
Murupara – Kaingaroa	19
Tokoroa – Mangakino	13
Waikato	22
Bay of Plenty	9
Auckland Urban Area	17
Northland	2
Taupo – Turangi	48
Wanganui – Taumarunui	13
Southern North Island (excluding Wellington)	8
Wellington Urban Area	16
Gisborne – Wairoa – Hastings	31
South Island	12
Overseas	2
Addresses unknown	279
Total	586

The Court had a record of an address for only 307 owners, 52 percent of the total. Among the addresses unknown, it was known that there were at least 70 deceased owners whose

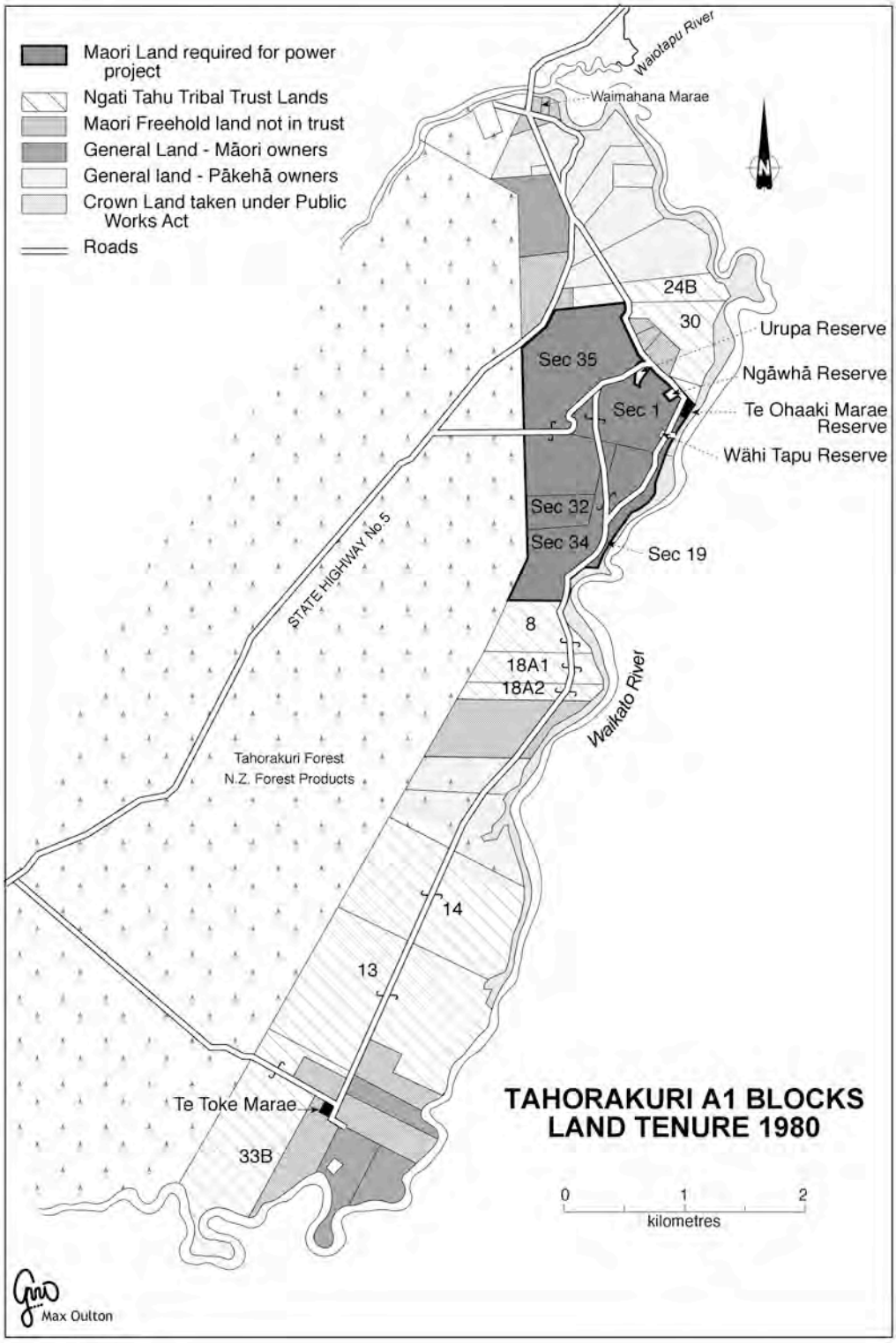

Maori Land required for power project
Ngati Tahu Tribal Trust Lands
Maori Freehold land not in trust
General Land - Māori owners
General land - Pākehā owners
Crown Land taken under Public Works Act
Roads
Waiotapu River
Waimahana Marae
N
24B
30
Urupa Reserve
Sec 35
Ngāwhā Reserve
Sec 1
Te Ohaaki Marae Reserve
Wāhi Tapu Reserve
Sec 32
Sec 34
Sec 19
STATE HIGHWAY No 5
8
18A1
18A2
Waikato River
Tahorakuri Forest
N.Z. Forest Products
14
13
Te Toke Marae
33B
TAHORAKURI A1 BLOCKS
LAND TENURE 1980
0
1
2
kilometres
Max Oulton

Figure 8.

interests had not been succeeded to. The pattern of dispersal of owners reflects some urbanisation, particularly to Rotorua where Maori Affairs housing loans were available, and to forest industries and hydro construction projects, in particular the Tongariro scheme based at Turangi.

In 1971 the several small reserves in Tahorakuri A1 Sec. 1 block were set aside under s.439 of the Maori Affairs Act 1953. The rest of this block and sections 32, 34 and 35 were vested in the Maori Trustee and leased to Ministry of Works for geothermal exploration, as outlined in Chapter 2. Following the meetings of owners on 11 November 1978 to consider MWD applications to purchase the land (see Chapter 5) the matter was referred to the Waiariki District Maori Land Advisory Committee by the Maori Land Court in February 1979. The committee visited the site on 8 May and were shown around by MWD engineers. Blackie Tanirau and I also attended and a few other Ngati Tahu, although we did not go on to the marae. I recall some confusion after we got out of our cars on the sinter area near the marae. The various Maori committee members were greeting each other and us and preparing to do a short mihi. The officials wanted to get on with the meeting. The engineers had already unrolled their plans on the bonnet of one of their cars. And then it started to rain, and the water colours on their big plan of the site started to run. Plans were quickly rolled up and we got back in our cars to drive around the site in convoy until the rain stopped. At lunch in the Reporoa Hotel, out of the rain, the questions of committee members could be answered, but only after the mihi. The committee held a separate meeting with Ngati Tahu owners at Te Ohaaki Marae on 29 May. The committee duly compiled its report and sent it to the Minister for Maori Affairs. The Minister duly directed that the matter be referred back to the Maori Land Court by means of an application by the Registrar to appoint trustees to negotiate a lease.

The several applications, including one by the Maori Trustee to terminate the existing trusts, came before the Court, Judge Durie, in Rotorua on 23 October 1979. Various documents were produced, submissions made and then the hearing was adjourned, 'for the completion and filing of accounts by the Maori Trustee for the period prior to 1974'. Judge Durie also indicated that 'either a decision will be promulgated or directions for further particulars or for further hearing will be given' (Taupo MB 60/137-138). The Court room was then made available for an informal meeting of Ngati Tahu owners present in which the Registrar, Bill Patrick, explained the obligations and responsibilities of trustees appointed under s.438 of the Maori Affairs Act 1953, answered questions, and chaired further discussion.

On 18 February 1980 Judge Durie issued a lengthy decision (Taupo MB 60/159-187). He reviewed the history of the land since the Taupo County Council application in 1966 'to have certain lands leased to ensure the recovery of outstanding rates various Ohaaki lands were vested in the Maori Trustee' and subsequently leased to Ministry of Works for geothermal exploration. The Court criticised the Maori Trustee's use of a standard form of farm lease with one additional clause to cover geothermal energy investigations:

> It is quite clear… that the primary object of the envisaged lease was to facilitate the proposed geothermal undertaking. I do not consider the single clause quoted above [see Chapter 2] to be sufficient for the sorts of terms, conditions, covenants and restrictions that might be contemplated in any such lease. There is a complete lack of special provisions [for] the roading, laying of pipes, restoration of the land, protection of sacred spots and the maintenance of certain facilities such as bathing pools and the

> like, and it may well be that the tardiness and carelessness in draftsmanship will be to the eventual disadvantage of the beneficial owners in the negotiations to follow.
>
> It seems also to have been intended by the Court at that time that those parts of the land not immediately required for geothermal exploration might be cleared or otherwise utilised for agricultural purposes… During the hearing it was reported that the farming covenants of the lease had not been complied with and that the land itself had "reverted'. I was also given to understand that no steps had been taken to enforce the covenants of the lease. For all I know the lack of development may well have had an effect upon the annual valuation and that may well explain why there was no increase in rental in respect of Section 1 over 3 years and only marginal increases in Section 34 (Taupo MB 60/162).

The leases to MWD at this time dated from 1 January 1974 for five years with a right of renewal for five years and an annual rent review at 7 percent of the capital value. It was also noted that the leases on Sections 1, 34 and 35 had been renewed in 1979 with no reference to any breach of covenant, despite the Maori Trustee report to the Court 'that the lands have "reverted", and that the farming covenants had not been observed' (Taupo MB 60/163).

The Court then reviewed the various applications for change in the advisory trustees, and the failure of the Maori Trustee to follow up owners' requests for moneys from rents to be applied to refurbishing Te Ohaaki Marae: 'the Maori Trustee's actions have been unhelpful' (Taupo MB 60/165). The Court outlined the MWD applications for meetings of owners to consider purchase of Sections 1, 32, 34 and 35, noting that each of the meetings 'failed for want of a quorum', the 'unanimous' decision not to sell or exchange the land of the 150 or so owners present, that in Section 19 the one owner had since died, and this block should also be included in a trust as MWD wanted this one too: 'it will be the endeavour of the Court to have all the blocks that are or are likely to be affected by the general proposals, placed under the one trust' (Taupo MB 60/165-166).

The Court went on to note the Minister of Works' notice of requirement for designation of the power project site, the subsequent hearings and appeal to the Planning Tribunal, the provisions for a papakainga zone, the reserves on Section 1, and the Maori lands required. Roadways on these lands, both public and Maori roads, would be affected, and it was proposed by MWD to construct a new access road through the geothermal field and bridge over the Waikato River to connect State Highway 5 and Broadlands Road. However, it was 'unlikely' that the project would 'result in an upgrading' of Te Toke Road, a Maori road from Te Ohaaki Marae to Te Toke Marae and State Highway 5 which provided the only access to Te Toke and was a school bus route. 'On 24.6.79 the Te Toke people met and resolved to support an application to have the southern Maori roadway made public, without compensation', although acceptance by Taupo County Council would depend on whether funding to upgrade it could be found:

> Suffice it to say here, that the geothermal project is unlikely to advance the owners' concern to ensure improved access to both the Marae and the surrounding lands. Indeed there may be some detriment (Taupo MB 60/169).

The Court also reviewed other issues that prospective trustees would have to deal with, including protection of wahi tapu on site, loss of hot water to Te Ohaaki Marae and its bathing pools, the collapse of Ohaaki Pool, 'noise and dust affecting Marae proceedings'

during construction, landscaping and screening between Te Ohaaki Marae and the project, which would 'require some continuing responsibility and oversight on the part of the trustees'. In addition, there was the possibility that Te Ohaaki Marae might have to be relocated, 'a prospect that could no doubt become the most contentious issue for the people and which might well hinder and detract from the conclusion of negotiations in all other areas'. The Court concluded that it was essential that the same group of trustees be appointed for both the reserves and all the blocks likely to be affected by the project (Taupo MB 60/170).

The Court reviewed the responsibilities expected of trustees in this situation who would be required 'to negotiate a lease that will no doubt bind, not just the current owners, but future generations as well' for a large power project of national significance:

> The negotiation of a lease for the particular purpose is one that might well daunt the most expert of negotiators and then alone on questions of fair rental (having regard to the proposed use and the access to certain natural resources thereby given), length of term and frequency of review. (Indeed a more suitable arrangement might be more in the nature of a partnership.)….
>
> The prospect that the Crown might not be able to accept the leasehold venture has also been stressed by Counsel for Ministry of Works and Development. The trustees cannot presume that a leasehold venture will be agreed to simply because a Court order empowers them to negotiate one. For the type of lease I would envisage appropriate, it would probably be necessary for the trustees to be constituted as a leasing authority under the Public Bodies Leases Act as provided for in Section 235A of the Maori Affairs Act 1953; but in the final analysis, the trustees may well be confronted not with a lease but a compulsory taking, and a somewhat complex argument as to the value of the lands and the assessment of compensation for the loss of certain natural facilities associated with them.
>
> Nor do I presume that the owners have had sufficient independent advice to enable them to reach an informed decision on whether or not they should be bound to consider a lease at all. No independent expert advice was available to them at the November 1978 meeting when the decision [to lease] was reached. The matter was referred to the District Maori Land Advisory Committee but the Registrar is unable to prefer any expert opinion or alternative suggestions adduced before or considered by that Committee, nor has the Registrar received any further supportive information that might help resolve the difficult questions of funding and the provision of the necessary resources that might enable the ten elected representatives [the provisional trustees] to operate efficiently as a trust body. For those reasons, in any trust order I would not restrict the trustees to the negotiation of a lease, but would give instead a wide discretion, noting only the clear aversion of the owners to any sale (Taupo MB 60/171).

The Court then recorded the tenor of submissions from owners at the October 1979 hearing in which doubts were expressed that the magnitude of the task ahead was greater than the ten 'provisional trustees' nominated at the November 1978 meeting of owners could deal with without expert advice:

> It was put to me that the ten were elected primarily to ensure that there would be proper consultation and liaison with representatives of various family groups, and that if consultation could in some way be ensured, then they would prefer to have appointed a small body of experts to assume managerial responsibility and to report progress and developments to the ten "family" representatives (Taupo MB 60/173).

The structure of the proposed trust was a 'small body of responsible trustees' and a 'runanga' of about ten 'advisory trustees' including Marae trustees, and a trust order which provided for 'regular consultation with the advisory trustees and considerably extending the areas of responsibility'. The owners proposed my name to the Court as one of the responsible trustees and that of Walter Rika, one of the owners, employed in the Maori Land Court in Rotorua, but transferred to Gisborne shortly after this. The Maori Trustee was also suggested but the Court noted there was 'no provision enabling the Maori Trustee to be appointed as a co-trustee' and the owners did not wish to see the Maori Trustee continue as sole responsible trustee.

I had no intention when I became involved in the planning hearings of becoming a trustee but in discussing the Ohaaki situation with both Judge Kevin Cull in the Maori Land Court in Hamilton and with Judge Durie in Rotorua it was put to me I should consider appointment as a trustee. I had assumed my role would be as an adviser on planning matters. I had no expertise at all in legal matters involving negotiation of a lease, I had no kin affiliation with Ngati Tahu, I was a Pakeha outsider living in Hamilton, away from the lands involved in the project. Both Judges were persuasive that Ngati Tahu needed people working with them who would be able to take on the Crown with all its experts, officials and advisers. We also had before us the recent incident following the eviction of protesters from Bastion Point. The Prime Minister, Robert Muldoon, had insisted that he would only negotiate with legally appointed trustees, and even excluded Ngati Whatua kaumatua from discussions. The Judges were concerned that Ngati Tahu negotiators needed both the expertise and legal powers to make decisions which an advisor could not do. There were other issues, such as the time commitment required, the personal liability of a s.438 trustee (although if a trust is well managed this is not an issue) and whether I could take on this major burden on top of a full-time job as a senior lecturer then at University of Waikato, and a solo mother of two sons then 10 and 13 years old. I said I did not have the legal expertise. Eddie Durie's response was that he would also appoint Ken Gillanders Scott, who had just retired as Chief Judge of the Maori Land Court. Not long after this, Eddie Durie was appointed Chief Judge in his place, and then moved to Wellington.

Ken Scott and I were the two outsiders among the six responsible trustees appointed under s.438(2) of the Maori Affairs Act 1953. The others were Walter Rika, Pare Hika (Tahau) a Maori warden in Rotorua, Bill Hall who lived in Taupo, and Henry Bird of Murupara, whom we elected as chairman. The Court also appointed ten advisory trustees under s.438(2A)of the Act. The trusts for each of the blocks listed in the schedule of the trust order were to be known collectively as the Ngati Tahu Tribal Trust. The four reserves on Tahorakuri A1 Section 1 and the Rua Hoata Reserve on Tauhara North 2 block were all vested in these 16 trustees under s.439(7) of the Act.

The powers of the Ngati Tahu Tribal Trust were contained in the Trust Order under s.438(5) of the Act, which set out the objects of the trust:

a. Except as hereinafter may be limited the objects of the trust shall be to provide for the use, management and alienation of the land and any other property or assets of the trust to best advantage of the beneficial owners while as far as is practicable ensuring the retention of the land for the present Maori beneficial owners and their successors, to make provision for the better utilisation of the land by the rearrangement of titles or the like, to make provision for the better habitation or user of the lands by the beneficial owners by making appropriate divisions of the land or in any other manner, to maintain support and develop communal facilities upon or near the land which are directly or indirectly to the advantage or interest of the beneficial owners…. And, to represent the beneficial owners on all matters relating to the lands and in the use and enjoyment of the facilities associated here with.
b. To promote and seek the inclusion of additional lands of the Ngati Tahu people under the trusts hereof and so to promote the overall planning and development for the Ngati Tahu people and their lands.
c. To promote the greater involvement and representation of the elected representatives of the beneficial owners in the administration of their lands by fostering and maintaining regular consultation and meetings with such persons as may from time to time be appointed as advisory trustees.
d. To represent the beneficial owners on all matters relating to the proposed Ohaaki Geothermal Power Project… PROVIDING HOWEVER that the trustees shall have due regard to a recommendation of certain owners at a meeting on the 11 th day of November 1978 and recorded in the records of the Maori Land Court whereby those owners were unanimously opposed to certain resolutions for the sale of their land to the Crown and sought the appointment of trustees to effect a lease and in the event of the Crown wishing to pursue the said geothermal project the trustees will use their best endeavours to conclude an arrangement or agreement that does not involve the sale or the taking of the land, and then in respect of the whole or any parts of the said land and to best advantage of the beneficial owners (Taupo MB 60/178-179).

When I finally agreed to appointment as one of the responsible trustees I said it would be on condition that we were given no power of sale. The Trust Order contained another seven pages setting out our powers in more detail, and then reinforced the prohibition on sale under the heading of 'Obligations' among which were:

a. The trustees shall not alienate the whole or any part of the fee simple by gift or sale or other than by way of exchange on the basis of land for land value for value and then effected by Court order or in settlement of a proposed acquisition pursuant to the Public Works Act or similar statutory authority.
b. The trustees shall not lease the whole or any part of the lands with provision for compensation to a lessee for his improvements (Taupo MB 60/184).

The initial informal response of the MWD district solicitor was that the trustees did not have the powers, therefore could not negotiate with the Crown. The MWD applications to purchase had not been withdrawn. I responded that we had all the powers we needed to negotiate a lease, and he would have to tell his superiors in Wellington to agree to lease the Maori land they needed for the project.

The powers of the trustees in respect of the reserves were set out in s.439 of the Maori Affairs Act 1953:

> Maori reservations for communal purposes;
> (1) The Secretary may by notice in the Gazette issued on the recommendation of the Court, set apart any Maori freehold land or reservation for the purposes of a village site, meeting place, recreation ground, sport ground, bathing place, church site, building site, burial ground, landing place, fishing ground, spring, well, catchment area or other source of water supply, timber reserve or place of historical interest, or for any other specified purpose whatsoever.

In the Maori Affairs Amendment Act 1974 this section was amended by the following:

> 439A(1) On the application of the Minister the Court may consider a proposal that any piece of land (whether Crown Land, Maori Land or European Land) should by reason of it's historical significance or spiritual or emotional association with the Maori people or any group or section thereof, be set aside as a Maori reservation under Section 439 of this Act and make a recommendation to the Minister.

Other relevant clauses in Section 439 were:

> (3) Every Maori reservation under this Section shall be held for the common use and benefit of the owners or of Maoris of the class or classes specified in the notice. For the purpose of this subsection the term "Maoris" includes persons who are descendants of Maoris.
>
> (7) The Court may by order vest any Maori reservation in any body corporate or in any two or more persons in trust to hold and administer it for the benefit of the persons or class of persons for whose benefit the reservation is constituted, and may from time to time, as and when it thinks fit, appoint a new trustee or new trustees or additional trustees.
>
> (9) The land comprised within a Maori reservation shall, while the reservation subsists, be inalienable whether to the Crown or to any other person.
>
> (10) The Governor General may from time to time, by Order in Council, make all such regulations as in his opinion may be necessary or expedient for giving full effect to the provisions of this section…

The reserves were held communally, with no list of owners, and were inalienable. There was no issue of the Crown wanting these lands for the project, but the project might affect the reserves and it simplified the situation to have the same group of trustees for all.

The Schedule to the Ngati Tahu Tribal Trust order listed 14 separate blocks and five reserves, being the Marae, Ngawha, Urupa and 'Fertility Rock' on Tahorakuri A1 Section 1 block and Rua Hoata on Tauhara North 2 block. Five Tahorakuri A1 blocks – Sections 1, 19, 32, 34 and 35 – were in the area designated for the Ohaaki Power Project. However, late in 1979 the Registrar of the Maori Land Court had received a notice from NZ Electricity advising:

> that in order to provide construction power to the Ohaaki Power Station and Broadlands Geothermal Field it will be necessary to survey a route for a new 33,000 volt transmission line on wood poles between Wairakei Power Station and Ohaaki. By that letter, survey entry notice was given as provided for in the Electricity Act 1968, with advice that upon completion of the survey and establishment of pole positions, way-leave notices will issue to enable actual construction, and the assessment of compensation (Taupo MB 60/175).

This survey was in due course to provide the route for the much larger pylons to carry a 220kv line to link Ohaaki Power Station to Wairakei and the national grid when the station was commissioned. The notices were sent by NZE in August 1979, but not referred to the Court in the form of an application by the Registrar to appoint agents under Part IX of the Maori Affairs Amendment Act 1974 until January 1980. The Court commented, 'The exigencies of the situation are such, and the delay already so long, that the Court will vest each of the blocks referred to in the Ngati Tahu trustees without notification or hearing' (Taupo MB 60/177).

The 13 Tahorakuri blocks vested in the Ngati Tahu Tribal Trust are shown in Figure 8. The Tauhara North 2 block was further up the Waikato River on the east bank at Rotokawa, between the lake and the river (for a history of this block see Stokes 1994). Details of the blocks in 1980 are listed below:

Block	Area(hectares)	No. of Owners
Tahorakuri A1 Sec.1	99.4 (P)	564
" " " 8	44.0	10
" " " 13	319.0 (L)	40 +
" " " 14	227.0 (L)	10 +
" " " 18A1	46.0 (L)	1(deceased no successors)
" " " 18A2	27.0 (L)	3
" " " 19	2.9 (P)	1(deceased no successors)
" " 24B	45.0	40 +
" " " 30	55.0	50 +
" " " 32	28.0 (P)	152
" " " 33B	190.0 (L)	150 +
" " " 34	154.0 (P)	92
" " " 35	197.0 (P)	83
Tauhara North 2	332.0	230

The blocks labelled (P) were all in the designated Ohaaki Power Project site. The blocks labelled (L) were subject to farm leases of 21 years dating from the late 1960s arranged by the Maori Trustee. Tahorakuri A1 Section 8 was informally occupied by one family of the owners. Apart from MWD geothermal exploration of some blocks on short term lease and others by notice of entry under the Geothermal Energy Act, the other blocks were unoccupied. Tauhara North 2 block was part of the Rotokawa Land Development Scheme under the control of the Department of Lands and Survey.

The task of the new Ngati Tahu Tribal Trust was to provide an effective administrative structure for this disparate collection of blocks, a marae and other reserves, and negotiate a lease to the Crown for the Ohaaki Power Project. The owners opposed sale to the Crown. The options now were a taking by the Crown under the Public Works Act or negotiation of a leasehold.

8. Negotiations Toward a Lease

On 27 February 1980 the Registrar of the Maori Land Court in Rotorua sent out copies of the Court decision to set up the Ngati Tahu Tribal Trust, the Trust Order and other orders cancelling previous trusts (Taupo MB 60/159-187). In his covering letter to the six responsible trustees and ten advisory trustees he drew attention to some aspects of the new trust:

> You will note first of all that 14 blocks have been included in the Trust, and together they cover a very extensive area. Some of the blocks were put in simply because the Court had received a further notice, this time from the New Zealand Electricity Division of the Ministry of Energy, for the surveying and laying off of power transmission lines. The inclusion of these blocks will give many advantages to the particular blocks concerned and offer a means whereby the best management of those lands can be effected in accordance with the wishes of the particular owners. Should it happen however that owners wish later to withdraw from the trust arrangements the Court sees no difficulty about that being done.

It was then explained that other blocks could also be added to the trust:

> For now however the Court has put in just those blocks the future of which seem to be in some jeopardy if they were not immediately vested under a common trust.
>
> Then you will note that all of the 14 blocks, along with each of the Maori Reservations, is now vested in the Ngati Tahu Tribal Trustees so that there is now one body for overall administration.

Finally it was noted that trustees had no power to sell any land, that rents would be paid out in the usual way in accordance with shares held in each block, although the trustees had power to hold back rents in appropriate circumstances.

The administrative structure was now in place so that Ngati Tahu could present a united front to Crown officials. I also had to assure my employer, the University of Waikato, that this was an appropriate role for me to get into. In my letter to the Vice Chancellor advising him of my appointment as trustee I outlined briefly the nature of the trust:

> The trustees have been given considerable powers by the Court in the hope that the formation of a single Trust will promote Ngati Tahu tribal development and serve as an example to other tribes. This Trust is seen as setting a precedent which will be of considerable interest in the social and economic development of Maori lands and community in an area which has suffered considerably from depopulation and unemployment. The Maori Trust Office in Rotorua has been instructed by the Secretary for Maori Affairs to provide administrative services for the Ngati Tahu Tribal Trust. Any costs, such as travel etc. incurred by trustees will be covered by the Trust. The constitution of the Trust has the support of the Department of Maori Affairs Head Office, Rotorua District Office and the Maori Land Court.
>
> From my own and the University point of view, this appointment provides a unique opportunity to participate in an "experiment in tribal development". This fits in with

> the emphasis in the Centre for Maori Studies and Research on community development and the statement in the University Calendar that "research workers from the Centre will therefore be involved actively in the community while conducting their research, and will seek to find appropriate ways of returning information to the community and assisting them to develop their own solutions".

I was still seconded from the Geography Department to the Centre for Maori Studies and Research. I was not to know then that the Director, Robert Mahuta, would decide to drop Ohaaki from his research programme to concentrate on Tainui affairs. The following year, 1981, I returned to Geography and set up a pioneering course at second year level called Maori Land and Communities. I stayed with the Ngati Tahu Tribal Trust, in spite of some adverse criticism from colleagues about time spent away on Trust business. At least I did not lose pay, as other trustees who took a day off work to attend meetings in Rotorua or Te Ohaaki Marae did. I did not at any stage charge for my time although I did accept reimbursement of my return bus fares to Rotorua from Hamilton.

Criticism from university colleagues was the least of my concerns. I had already weathered some strife caused by an article in the *Waikato Times* at the time of the designation requirement hearings in Taupo which suggested erroneously that the University was involved in 'Maori opposition' to the Ohaaki Power Project. I had to explain that I had not been interviewed on the matter, the Times reporter had jumped to wrong conclusions in a review of the objections lodged and evidence presented which were public documents. There were other adverse comments which I ignored. I was given some good advice by the late Professor Peter Freyberg to maintain my teaching and research and 'then they can not touch you'. I tried to remember this advice. I also had the satisfaction of seeing a consistent enrolment of over 40 students and more in succeeding years in my Maori Land and Communities course, in spite of opposition to setting it up and predictions nobody would want to do it.

I have digressed a bit but it was a complex role I was about to take on. There is a big difference between being an adviser to help out, with specific expertise in specific situations, and being at trustee over a long period. A trustee had all the powers of a legal owner but must be accountable to beneficial owners and carry the burden of personal liability. I also had to weather some Maori criticism: 'What does that Pakeha know about Maori things?' Henry Bird, the chairman we elected at our first meeting, suggested the way to deal with my being an outsider was to arrange to give me some shares in Ohaaki lands. I said I did not think that was necessary as I already had the same legal powers and obligations as the other trustees, but I appreciated his gesture of solidarity. Perhaps if I knew how much Ohaaki was to take over my life in the next ten years I might not have agreed to being appointed a trustee. Who knows, but I do not regret the experience, rough as it was at times. Being a trustee of Maori lands is not a job for the faint hearted. My friend and colleague, John Rangihau, warned me, 'Remember you are dealing with a feckless people'. I discovered later he had also experienced strife with some Ngati Tahu when he was a Maori Affairs Community Officer in Rotorua. Yes, at times they could be feckless, but there were also some wonderful people among Ngati Tahu whom I would not otherwise have got to know so well.

The first meeting of all 16 members of the Ngati Tahu Tribal Trust was held in Rotorua on 27 March 1980. This was mostly a general discussion clarifying roles and discussing policy for the operation of the Trust. It was made clear that the six responsible trustees, sometimes called the 'head trustees' by locals, would do the negotiation with Crown officials over a lease and related matters. It was generally agreed that top priority should be given to the

refurbishing Te Ohaaki Marae, in conjunction with the Marae Committee, whose chairman, Tom Campbell, was one of the ten advisory trustees in the Trust. The meeting house, Tahumatua, was in urgent need of repair and this was a project local people could take on. I volunteered to investigate funding from outside sources but emphasised that local people should also contribute. I also had in mind that I would seek significant funding under the amenity grant provisions of the Electricity Act 1968 for rebuilding the dining hall and ablution block. This was another story which is told in Chapter 10.

On Sunday 8 June a meeting of all trustees was held at Te Ohaaki Marae, at which it was agreed that rent moneys on Tahorakuri A1 Section 1, the papakainga block, should be put toward the restoration of the meeting house. It was also an opportunity for trustees to be taken around the project site to get a better idea on the ground of the layout of wells, pipework and power station. This expedition was led by Barry Denton whom I had got to know when he was Project Engineer for construction of the Huntly Power Station. He was now MWD Project Engineer Geothermal, based at Wairakei. Meanwhile, I had written to John Daniels, Director of The New Zealand Historic Places Trust, seeking assistance. I explained that the meeting house needed a new roof, as the existing one was leaking, but we could not use corrugated iron as geothermal discharges into the atmosphere from nearby wells accelerated the rate of corrosion. There was also a potential problem of subsidence after the power station began operating. However, a report on ground conditions near the marae, commissioned by MWD and prepared by the District Engineer, Housing Corporation, concluded that there was no reason why timber structures on properly treated wooden piles could not exist alongside the power project. A glazed tile roof had been suggested but this might be too heavy and crack if any ground movement occurred.

I had discussed the problem with Barry Denton who said that as an engineer he would recommend aluminium, but thought we should get an architect to assess the structural requirements. I asked John Daniels to arrange for a suitably qualified architect to inspect the meeting house, since it may qualify as a historic building and it would be wise to seek professional advice. I had also compiled a brief note on the history of Tahumatua after talking with Ngati Tahu elders:

> The meeting house at Te Ohaaki Marae is named Tahumatua, ancestor of Ngati Tahu. The old Tahumatua once stood at Orakei Korako but some time in the 1890s it was moved to Te Ohaaki. It was first rebuilt at Piripiri, near the site of the present urupa. Then it was moved to the present marae. The old house was smaller than the present house, with roof thatched with raupo and carved maihi (barge boards). About 1916 it was decided to build a new Tahumatua. The old house was taken down and as the carvings were too small for the new house they were buried on the site of the present house.
>
> The man in charge of building the new house was Hori Matenga with assistance from other local people including Te Whiwhi Mihinui, Whiu Ihaia, Tangi Reihana and Ngakuri Matene. The timber used was all totara and was milled at Palmer's Mill, Oruanui. The carvings were done by Tuhuruhuru of Te Arawa who lived at Hinemoa Point, Rotorua. He was assisted by his nephews, Mita, Herewini and Taimoa. Catering for the workers was organised by Rongomaipapa Reihana, sister of Te Whiwhi Mihinui. Her two daughters, Rawinia Fraser and Ruhia October, remember the building of Tahumatua as they were children at the time. They lived in the totara

Restoration of Te Ohaaki Marae: *top*. November 1981, land around the marae has been cleared; *middle*. May 1982, the meeting house has been raised and reblocked with a new concrete porch and steps, and a new roof put on; *bottom*. November 1982, the carvings have had conservation work done and put back on the meeting house.

slab house which is still standing near the entrance to the marae. All the cooking for the workers was done there as there was no dining hall at this stage.

The Historic Places Trust was supportive and asked MWD to arrange for an architect's inspection. I spent an interesting day with Mac Campin of MWD, Hamilton, who was asked to inspect Tahumatua. He had already some experience in restoration of old meeting houses, including Hinemihi, the house at Wairoa which had been engulfed in the Tarawera eruption in 1886, and was subsequently acquired and taken to England to be re-erected on a country estate there. In December 1980 we received Mac Campin's report from Historic Places Trust:

> In general the building is in reasonable condition for its age; it was built in 1916, almost entirely of heart totara. It is approximately 14m x 6.800m, with a stud height of 2.100m and roof pitch about 30^{o}.
>
> There is a bow and lean in one wall, and this should be corrected by re-blocking the building and strengthening the knee joints at the feet of the rafters. The re-blocking should be done by specialist contructors; or at least supervised by a specialist. If local amateur labour is used on a building with incipient failure the result could be a collapse. The hydrogen sulphide regulations should be observed in excavating, as this gas is probably present in the area….
>
> It is recommended that the iron roof, which is laid on sarking, should be removed. The roof should then be battened and the roof covered with pinus radiata shingles. These should be immune to damage from any atmospheric pollution, but the fixing nails will need careful selection – probably aluminium nails would be best, providing the alloy contains no copper.

The estimate of total cost including repainting was itemised and came to a total of $4,474 for materials and $4,504 for labour. Obviously, we were going to need most of $10,000. This did not include restoration work on the carvings which Mac Campin said should be undertaken by 'qualified specialists'. I had already discussed this with wood conservation expert Karel Peters of the Auckland University Anthropology Department, and asked him for an estimate of costs.

At a meeting of owners at Te Ohaaki Marae on 3 February 1981 the architect's report on Tahumatua meeting house was discussed and a resolution passed to allocate accumulated rent moneys from Tahorakuri A1 Section 1 block toward costs of restoration. This would amount to about $5,000. I applied to the Historic Places Trust for financial assistance. Meanwhile, the Marae Committee sought quotes from Taupo firms to do the work. In early July I was advised that the Historic Places Trust had made a grant of $1,000 toward reroofing and reblocking the meeting house. Unfortunately, only one Taupo firm was prepared to quote for the job – at about twice the price in Mac Campin's estimates. In August 1981 Karel Peters visited the marae and produced a report on the state of the carvings and conservation measures to protect them. The Historic Places Trust covered the costs for Karel Peters to provide expert supervision of local workers. By February 1982 I was able to report to the Historic Places Trust that the Chairman of the Marae Committee, Tom Campbell, had organised a group of workers to take down the carvings and restoration work, which involved cleaning and stripping the old paint, was well under way under Karel Peters' supervision.

We were not prepared to accept the Taupo firm's quote and I referred the problem to the Department of Maori Affairs in Rotorua. I had already arranged with the Labour Department in Hamilton to have Te Ohaaki Marae accepted as eligible for PEP (Project Employment Programme) work schemes. The Assistant District Officer Maori Affairs, Jim Nicklin, agreed to take over the matter and, with one of the community officers and Wally Downes in the building section of Maori Affairs, undertook negotiations with the Labour Department and Rotorua contractors. In February 1982 it was agreed that Dick de Vautier Ltd, Rotorua, with assistance of PEP workers would undertake the reblocking and work started the same month. Wally Downes provided the technical expertise to appraise work requirements and quotes, and the contractor was prepared to take on the role of supervisor of the PEP workers.

In May 1982 I was able to report to the Historic Places Trust that reblocking of the meeting house was completed, a new concrete porch constructed, and reroofing with wooden shingles was well underway. Work on restoration and repainting of carvings was complete on the maihi and amo, although some work was still being done on construction of frames to hold the amo. Although the project took a while to get started, it was by now well underway with the administrative assistance of officers of the Department of Maori Affairs and Labour Department. Apart from the contractors, labour was supplied by local people and PEP workers. Day-to-day supervision on site was provided by Tom Campbell, Chairman of the Marae Committee, and when he became ill and was hospitalised, Pare Tahau, one of the responsible trustees, took over. I concluded my report to the Historic Places Trust on 20 May 1982:

> I am delighted with the way the local people have responded to the restoration project. I feel that grants from the N.Z. Historic Places Trust can be used as "seed money" to get things started, and the enthusiasm for marae development is generated by seeing something begin to happen. The meeting house project has given the Marae Committee a new sense of direction and purpose. Last Sunday at a meeting of owners at the marae there was a unanimous resolution to assign the rent monies from the papakainga block on which the marae stands to the renovation and restoration of the meeting house and marae development. This means the Ngati Tahu Tribal Trust are in the happy position of being able to pay for the substantial costs involved in this project, which are likely to exceed $10,000, without too great a burden of extra fund raising.

This unanimous resolution was a refreshing change from the grudging consent we extracted from owners to assign the previous year's rent money. I recall then giving a brief, but passionate plea to them to look at the state of their ancestor, their house, its condition reflected on them etc. With something to see now, attitudes were changing. The Marae Committee decided to get on with refurbishing the inside of the house. We were later able to obtain a grant from MASPAC (Maori and South Pacific Arts Council) of $2,500 to assist with repainting kowhaiwhai, weaving new tukutuku panels, and carving of a new poutokomanawa.

The primary concern of the six responsible trustees was the negotiation of an appropriate lease arrangement with the Crown for the land required by the Ohaaki Geothermal Power Project. Because this project was a public work, negotiations were carried out under the Public Works Act by officials from the Ministry of Works. We were also aware of the existence of the National Development Act under which a project could be declared a public work in the national interest and all the processes toward construction and completion fast

tracked. The first meeting with Crown officials was held in Rotorua on 30 April 1980. The six trustees were present, Henry Bird had been elected Chairman and Walter Rika was Secretary. Three MWD officials arrived, Gary Grant, Director of Property Services from Head Office in Wellington, Bruce Parker from the Hamilton District Office and Barry Denton, Project Engineer Geothermal Wairakei. Henry Bird opened with a short mihi and then scolded the officials for calling a meeting but not providing us with an agenda or a statement of what they wanted. Gary Grant responded that they were there to introduce themselves, and expressed his doubts whether the trustees could deal with the purchase of the land in terms of his MWD brief. No decisions were expected at this meeting, it was one for exploring the roles of the two parties.

Ken Scott asked what deficiencies MWD saw in the Ngati Tahu Trust Order and suggested it was a bit late to question it now. Grant replied that it would be 'a significant departure from policy to lease' and in answer to Scott's question said there had been no change in MWD policy. Scott then launched into a statement about why leasing was not such a bad thing, that Government had entered into numerous leaseholds in the past, quoting a number of perpetual leases and other lease arrangements, that currently New Zealand Forest Service was entering into numerous lease arrangements on Maori land. He also questioned why the 'legal boffins' of MWD were not present. It was a matter of 'putting the cart before the horse'. The Ngati Tahu owners were entitled to know what Government had in mind and MWD should have passed that on to the Court or to the meeting of owners called by the Court. We had no information about whether Ohaaki was intended to be an 'enduring or limited life' project.

Grant responded that the MWD position was clear, that the purpose of this meeting was to talk informally, not get involved in legal argument, not to hide anything, but to explore some areas where we could compromise if necessary. He referred to recently proposed legislative changes in the Public Works Act which would allow exchange of land. (The new, consolidated Public Works Act 1981 did not become law until 3 October 1981). He suggested that Government wanted to acquire as little land as possible, but to acquire the freehold of the power house site, any other permanent substantial works and the access road. It was 'essential in terms of current policy' to acquire these, but they would need to explore other ways to 'protect' other areas such as bore holes and pipe works, perhaps by easement. Grant also referred to a limited area leased by MWD during construction of the Tongariro Power Scheme. This was not helpful as Ngati Tahu trustees were well aware of the unhappiness among Ngati Turangitukua and other hapu of Ngati Tuwharetoa over the extensive taking of land under the Public Works Act at Turangi and elsewhere for this scheme. (I later sat on the Waitangi Tribunal panel that heard Ngati Turangitukua claims; see *Turangi Township Report* 1995).

Henry Bird, in response to Grant's reference to arrangements made with Cromwell land owners for the Clutha Scheme, explained that Maori attitudes to land differed, that there was a spiritual force in the name Te Ohaaki o Ngatoroirangi, that if they sold the land they would sell their soul. Besides, the beneficial owners had not agreed to any sale or exchange. Grant said they were trying to be sensitive but there had to be the same rules for Maori and Pakeha. The ideal arrangement for MWD would be to buy the whole area and then dispose of what was not required when project construction was completed. He conceded that now that he knew there were strong feelings about the land, MWD might have to adjust its requirements, but they had to be careful about setting precedents.

Barry Denton explained that the current energy plan of the Government's Power Planning Committee suggested a date for Government approval of construction at 1 October 1980, and commissioning of the first machine in October 1986. There would be another energy plan later in 1980 which may shift these dates. Grant said negotiations would proceed on the basis that the Government would approve construction. Scott suggested we could not proceed without precise identification in writing, with plans, which areas MWD required, and that arrangements would need to be included for Maori owners to use surplus steam and hot water. Grant conceded there was no defect in the Trust Order to prevent negotiations proceeding and he would go to NZE to explore the question of tenure of the land by something less than freehold. I explained that it was not just a matter of convincing the six trustees present, we also had to go back to our beneficial owners with a package that would convince them to agree.

It was not until 8 August 1980 that Bruce Parker sent us a letter and plans setting out 'the form of tenure under which the Crown wishes to hold the various areas of land required'. He reiterated:

> it is the Crown's normal policy in projects of this nature to purchase the freehold land and it is considered this policy will need to be adhered to in respect of the power station site and access thereto, the proposed road connecting state highway 5 and Broadlands Road, the sewage treatment plant and substation sites….[there followed a list with areas]
> Consideration has been giving to holding the balance of the land on something less than a freehold basis. From the Crown's point of view, the most practical form of tenure would be a leasehold in perpetuity or for the life of the steamfield. On this basis a lump sum without rent reviews could be justified.

He listed the various areas in this proposed lease, noting that some areas required during construction could later return to owners. He also indicated that if the Ngati Tahu Trust Order did not provide for this under the Maori Affairs Act, 'the Commissioner of Works has indicated that he would be prepared to seek special authority to overcome any problems that may exist in this respect'. He concluded by noting that no firm commitment could be made yet about 'availability of surplus steam and water for use by the owners' and that the life of the steamfield 'cannot be predicted with accuracy' although Wairakei Power Station had now been operating for 22 years.

The trustees were not impressed with this proposal and sent a letter to MWD asking for reasons why the generation of electricity could not be carried out satisfactorily under a leasehold tenure. Parker's response on 18 September 1980 was that the leasehold proposal was 'a significant departure from normal government policy where for many years it has been considered necessary to own the land upon which major public works are sited to protect the Crown's investment'. He was also concerned about the 'possible precedent effect it may have on other future public works', and any reduction in areas to be purchased set out in his earlier letter 'could not be supported' because it 'could make it impossible for the Crown to maintain its policy in relation to future public works'. He also stated that the land required would be used only for the generation of electricity 'but the possibility of it being used for some other government purpose once it becomes surplus to the present electricity needs cannot be ruled out'.

Meanwhile, the trustees decided to begin the process of having the Ngati Tahu Tribal Trust declared a leasing authority under s.4 of the Public Bodies Leases Act 1969 and s.235A of the Maori Affairs Act 1953 in respect of Tahorakuri A1 Sections 1, 19, 32, 34 and 35 blocks, the site of the Ohaaki Geothermal Power Project. Letters were sent to both Hon. D.A. Highet, Minister of Internal Affairs, and Hon. Ben Couch, Minister of Maori Affairs. In his letter to Highet supporting our application, Ben Couch wrote:

> The owners are fearful that these lands could be taken by the Ministry of Works and Development by Proclamation unless the trustees are in the position where they can grant a long term renewable lease.
>
> In view of the present climate in Maoridom I am most anxious to avoid any unnecessary taking of land and consequently I am writing in support of the trustees' application.

We also wrote to Koro Wetere, MP for Western Maori in whose electorate Ohaaki was located. (A later boundary change put us in the Eastern Maori electorate.) He undertook to convey the message to the Minister of Works that we were prepared to lease, not sell or exchange the land required at Ohaaki.

On 25 August the trustees met with Jack Ridley, MP for Taupo, in Tokoroa. As a former MWD Project Engineer, and prospective politician, Jack had already indicated his interest in Ohaaki, and we sought his advice on engineering aspects. I recall we had a really interesting discussion about the possible life of a geothermal power station, the durability of concrete in such conditions and so on, which was very helpful. None of us were engineers and we felt the need for some professional advice. As the local MP he also undertook to convey to the Minister of Works that he saw no problem with building a power station on land subject to an appropriate form of lease to the Crown. I also arranged to talk to Stan Wong, Chief Power Engineer in NZE in Wellington, about Ohaaki proposals. He saw no problem in NZE about building a power station on leasehold land. I recall his comment that a lot of power stations had been constructed and were operating long before all the legal issues had been resolved. The problem seemed to be a certain intransigence in MWD Head Office, an unwillingness to change their long-held policy of acquiring the freehold of land required for public works. It was a matter of policy only. There was no legal deterrent or restriction on a leasehold arrangement for land needed to construct a power station.

On 9 December 1980, the Minister of Internal Affairs advised us that the Department of Maori Affairs in conjunction with his Department were preparing an Order in Council under s.235A of the Maori Affairs Act 1953 to declare the Ngati Tahu Tribal Trust a leasing authority under the Public Bodies Leases Act 1969, and in due course a notice of this would appear in the *New Zealand Gazette.* On 11 December a front-page story appeared in the *Taupo Times* headed 'Lands issue delays power plant start', which suggested that the 1986 completion date was 'unlikely to be met'. The paper then stated:

> Progress is being blocked by lengthy unresolved talks with Maori landowners. The Crown wants to buy the Broadlands [geothermal] field. Trustees for the owners are pushing for the lease of the land.

> "Virtually every week we delay means more money', said Mr Brill [Under Secretary for Energy]… Land talks had been going on for a long time…
>
> Mr Brill said it had always been Crown policy to own land it needed for such projects. Leasing the steam field would create a new precedent. The Crown had the right to take the land under the Public Works Act. However, the Ministry of Works and Development did not want to take this measure.
>
> At Tuesday's Tauhara College senior prize-giving Mr Brill said Ohaki would not only supply local industry but also contribute to the national grid.

A separate article next to this was headed 'Lease land says Ridley'. Jack Ridley, the Taupo MP, was the Labour Party energy spokesman who told the *Taupo Times* he believed that Government had accepted that Maori land at Ohaaki should be leased:

> On Tuesday Mr Jack Ridley said he had discussed the delays with the project with the Deputy Minister of Finance, Mr Templeton. His leasehold suggestion was before the government. "I have no doubt this is the quickest practical way of making concrete progress", said Mr Ridley.

Some of the Ngati Tahu beneficial owners were among the parents in the audience at the Tauhara College prize-giving and they were upset at this attack on Ngati Tahu. I phoned Bruce Parker of MWD, Hamilton, and he and others in the District Office were most unhappy and somewhat embarrassed. I made it clear that it did not help matters to have such public statements made while we were still negotiating. The message was sent to Wellington and we heard no more outbursts from Mr Brill. Our beneficial owners were getting restive too. On 29 January 1981, Basil Stillwell, MWD geothermal engineer at Wairakei, sent me a handwritten list of some 50 names with their shares listed alongside. His note on the list stated, 'Handed to DSIR personnel at Ohaki on 28th Jan 1981 by Kurupai Whata. Purports to be a list of owners of [Tahorakuri A1] Sectn. 1 who wish to sell'. MWD took the matter no further and nor did the trustees. We knew there would be individuals wanting their money, and we often had inquiries following any publicity about the project.

Meanwhile, the trustees were concerned at the length of time it was taking to get the Trust declared a leasing authority under the Public Bodies Leasing Act 1969. Gary Grant followed this up in Wellington with the Secretary for the Department of Maori Affairs. On 4 February 1981 we received an explanation for the delay from the Secretary:

> I am able to assure the Trust that there is no lack of will on the part of any of the Government Departments involved to have the required authority bestowed. As you know the authority comes in the form of an Order in Council signed by His Excellency, the Governor-General. This type of document has to be printed before it is signed by His Excellency and because of the load on the Government Printer at the end of the Parliamentary year and with the Christmas break as well, the printing has taken rather longer than we hoped…
>
> The printed Order in Council was posted to us from the Government Printer yesterday and as soon as it arrives the Minister of Maori Affairs will be asked to sign the recommendation to the Governor-General to have the Order in Council made. It is

> hoped the Order in Council might be issued next week, but it would be a week or two after that before it appeared in the New Zealand Gazette.

The Order in Council was finally published on 26 February (*New Zealand Gazette* 1981, p. 418). Although it declared the Ngati Tahu Tribal Trust to be a leasing authority pursuant to s.235A of the Maori Affairs Act 1953, it omitted the names of the trustees and the specific blocks of land to which it applied. The process of getting another Order in Council had to be started again.

By early March 1981 MWD officials were prepared to negotiate a lease of the project site but insisted on acquiring the freehold of the land required for the new road and bridge connecting State Highway 5 and Broadlands Road. The reason given was that the National Roads Board would not fund a public road unless it was owned by the Crown. We finally conceded that, on condition that the road would clearly become a permanent public road, MWD would have to take the road by agreement under the Public Works Act. We did not sell it. After we had signed an agreement to this effect, I was talking to Barry Butcher, District Commissioner of Works in Hamilton, who commented: 'Ah well, even if the Government does not decide to build the power station, we will get a nice new road and bridge'. We also offered to provide land for some houses for the project, an offer MWD did not take up. On the instructions of the trustees I composed a brief press statement on 9 March, indicating that we had agreed to allow MWD to enter our lands in order to begin work on the new road and bridge so that it would be ready when project construction began:

> Negotiations are continuing between the Crown and the trustees on various matters relating to geothermal development in the area. The policy of the Ngati Tahu Tribal Trust has been to endeavour to retain the mana of the land with the Maori owners. The Trustees have for some time now been discussing with Ministry of Works and Development a lease to the Crown of Lands required for the power project. The trustees have no desire to delay or obstruct the power project and have reached this agreement with Ministry of Works and Development to enter their lands in order that construction work may begin in the near future. There are many issues to be resolved which will require further discussion between the government departments and local bodies concerned and the Ngati Tahu Tribal Trust as construction proceeds. The trustees feel this continuing dialogue between the Crown and representatives of the local people is essential at all stages of construction of a large development project.

On 19 March 1981 Bruce Parker wrote to the Trust advising that he had now received the 'necessary authority to deal with the land required for the Power Station and ancillary works, excluding the road,' and set out the options:

a. On the basis of outright purchase.
b. On an exchange basis with other Crown land.
c. On a lease basis for a term of 21 years with perpetual rights of renewal with a lump sum payment at the beginning of the first term equal to the full freehold value of the land with no rent reviews and with an annual rental for the first term and any subsequent renewals to be one peppercorn.

At that stage possible Crown lands to be offered in exchange had not been identified. A few weeks later we were advised that the Department of Lands and Survey was prepared to make available Crown land adjacent to Tauhara North 2 block, part of the Rotokawa Development

Scheme. I queried why not the Crown land in Tauhara North 1 block, knowing it and Tauhara North 2 comprised a large part of the Rotokawa Geothermal Field. We were simply told it was not available. We turned down the offer, seeing no particular advantage to our beneficial owners of acquiring a tract of dry Taupo pumice land in exchange for Ohaaki geothermal lands and all the ancestral associations of Ngati Tahu there.

Although we had sought urgency in getting a new Order in Council declaring us a leasing authority under s.235A of the Maori Affairs Act 1953, it had still not happened when we met with Crown officials on 19 May. Bruce Parker, MWD Hamilton, and Errol Fogarty, one of Gary Grant's team in MWD Head Office in Wellington attended. These two were to become the principal Crown negotiators, although they could make no decisions, and always had to report back to their superiors for further instructions. We expressed our concern at delay in getting the new Order in Council. Ken Scott declared it 'a masterpiece in delaying strategy', that the delay was 'preposterous' as it only required about 20 minutes work by a law clerk. Fogarty also expressed his concern and said he would follow it up in Wellington. The rest of the meeting was taken up with negotiation of compensation for the land and trees on the new road. Bruce Parker had suggested in a letter: 'Although the road severs these Blocks, it is considered that betterment offsets offsets any detriment arising from the severances'. I queried why, if MWD was intending to lease land on both sides of the road, there would be any betterment for the owners. However, we agreed to seek independent valuations for both the road and other lands defined in their plans as needed for the Ohaaki Power Project. We also made it very clear that the only option for us was to lease the land on terms to be negotiated. The new Order in Council declaring us a leasing authority was finally issued on 13 July 1981 (*New Zealand Gazette* 1981, p. 1972).

Over the next ten months we had numerous meetings to negotiate a lease agreement, the details of which would be tedious. Ken Scott took the lead for the trustees in legal argument and we appointed Ainsley McLachlan of Rotorua as our solicitor to assist us. Walter Rika had been acting as secretary but in early 1982 we appointed Buddy Nikora, a Rotorua accountant, to act as secretary and keep our accounts. Up to this time the Maori Trustee, as required by the Court in the decision of 18 February 1980 when the Trust was set up, had been keeping accounts. However, this was becoming too cumbersome, especially as the secretary was now living in Gisborne.

In August 1981 I was at a New Zealand Geographical Society Conference in Wellington, where the Minister of Energy, Hon. W. Birch, gave the keynote address. I was able to arrange a short unofficial chat with him, to assure him he could have his power station on a leasehold basis, and to make sure his MWD officials understood that a lease was the only acceptable option. A taking under the Public Works Act, even if Ohaaki were declared a public work in the national interest, would not be acceptable in the Maori world, and would only cause trouble. He listened carefully and said he was interested in hearing the trustees' viewpoint. I felt confident we could agree on a lease to the Crown for the Ohaaki Power Project.

By early May 1982 we had an agreed draft of a 'Memorandum of a Heads of Agreement' to lease the Ohaaki lands. We had another meeting with our Advisory Trustees and Crown Officials to get their understanding and approval of the document. On 16 May we called a meeting of owners at Te Ohaaki Marae, attended by MWD, NZE and other Crown officials, to report the agreement to owners for their approval. I was deputed to explain it, to translate the legal language into simple English, and some limited use of Maori, to convey not only the

meaning of the words in the document, but also our reasoning behind the various clauses. To my intense relief, they passed a resolution unanimously supporting the agreement. The agreement still had to go back to Wellington for approval by the Cabinet Works Committee.

On 1 July 1982 I spoke to the Taupo Rotary Club, at the request of Barry Denton, the programme organiser. We agreed that it would be a good opportunity to help improve public relations locally. I explained the background from the Ngati Tahu viewpoint and there were the expected questions about why negotiations were taking so long. There was also a question why Ngati Tahu lands had not been developed for farming at Ohaaki. Basil Stillwell was there and volunteered the information that Ngati Tahu lands had been prevented from being included in a development scheme in the 1960s because the Ministry of Works had wanted the land. This had more impact from him as a now-retired, MWD geothermal engineer than it would coming from me.

However, there were other rumours, expressed in the press, about a possible review of the Ohaaki Power Project, and in particular an article in the *New Zealand Herald* (30 June 1982) about 'land tenure questions' not being resolved. I wrote to Mr Birch, on 7 July, expressing our concern about this, and pointing out that on 16 May we had an agreement which had been taken back to Wellington and we had heard nothing since. I wrote that we saw the Heads of Agreement as 'an innovative agreement which is significant in providing a resolution of the potential conflicts in attitudes toward Maori land but also allowing geothermal development to proceed'. I also, on behalf of the trustees, expressed 'our appreciation of the friendly and co-operative way in which negotiations had been carried on by Crown officials from both the Ministries of Works and Energy', and that we looked forward to an early start to construction of Ohaaki Geothermal Power Project. On 22 July Mr Birch responded:

> Please be assured that we have appreciated that the delay in finalizing the leasing arrangements for the land has been due to an unfortunate set of circumstances, and that throughout the Trustees have endeavoured to act in the best interests of the owners, yet at the same time be as helpful as possible in endeavouring to bring the matter to a satisfactory conclusion.
>
> My officials have had nothing but praise for the skilled knowledge the Trustees have brought into these negotiations.
>
> I am very pleased that the date of 28 July 1982 has been set to conclude the Memorandum of Heads of Agreement. As soon after that date as possible I shall be taking a submission to my cabinet colleagues to enable the construction of the power station to proceed. Like you, I can see many benefits coming from the scheme, not only nationally and regionally, but for the people of Ngati Tahu there will be opportunities presented by the availability of geothermal energy.
>
> I appreciate very much the sentiments expressed in your letter, and look forward to many years of fruitful co-operation in this exciting development.
> Yours sincerely
> (signed)
> W F Birch
> MINISTER OF ENERGY

On 28 July 1982, the final version of the 'Memorandum of Heads of Agreement for Granting of Leases of Lands for Ohaaki Power Station' was signed by the six responsible trustees of the Ngati Tahu Tribal Trust and Crown officials. This document provided for the lease to the Crown of lands shown in an attached plan, for a period of 50 years, with two rights of renewal, a maximum of 150 years. Payment was to be a lump sum to be negotiated following independent valuations, the amount to be settled within six months, and a peppercorn rental thereafter. Interest on the lump sum up to time of final payment was 18 percent per annum. We were unable to persuade MWD officials to pay continuing rentals, even if only for the construction period. The lump sum was seen as a capitalised rental. Unfortunately, Inland Revenue considered this was taxable income, liable for payment of taxes. We appealed on the special nature of the transaction but the answer from Wellington was we still had to pay and the best we could negotiate was to spread payment over five years. The Crown as lessee was to be responsible for all rates, taxes (including landlord's land tax) charges and assessments of any kind. The Crown also agreed to pay all costs, including valuation, legal and other professional fees, and out-of-pocket expenses of the trustees as lessors. There was also a provision for limiting the liability of the lessors.

We also built into this agreement provisions for ensuring a supply of up to 2000 kilowatts of hot water for whatever purpose we as lessors saw fit. We had in mind at the time a project for heated greenhouses for flower or vegetable production, or other commercial activity that could be set up on the land. The technical details were to be negotiated later. There was also provision for the Trust to be given first option on use of larger amounts of surplus heat that might become available at a price to be negotiated. In addition to access to geothermal energy for potential commercial use, there were separate provisions 'in recognition of the beneficial owners' traditional use of hot water' from geothermal sources that the Crown would provide 'free of cost a hot water supply from the operation of the power station to the extent of the owners' total domestic requirements, (including heating and bathing) to a mutually agreed point on the boundary of the Marae Reserve'. Further, the Crown would also 'discharge mutually agreed quantities of geothermal water into the Ngawha Reserve'. This is discussed later in Chapter 11. Another clause recognised 'the beneficial owners' traditional use of steam as a cooking medium' and provided for the supply of steam to the dining hall 'of sufficient quantity and, intensity to meet the reasonable requirements of the Marae Reserve'. All this was, of course, subject to the availability of the resource and continued operation of the power station, but the engineers saw no significant problems in providing steam and hot water for these purposes. A report on possible uses of 'waste' geothermal heat had already been produced by MWD and given to the trustees.

Several clauses in the agreement covered issues likely to arise during construction. Sites of cultural importance were included in the conditions for the designation of the land but we also provided for preparation of 'a map identifying all known Urupa, archaeological sites and all other sites, of historical significance or spiritual or emotional association' on the land. If any of these, or any other site not yet identified was likely to be disturbed, then work should cease until trustees had been consulted and appropriate action decided. I recall an engineer asking me whether there were many burials on the site. I responded that if they must locate a power project on an old papakainga then old bones could be found anywhere. We knew about most of the burials, but one group of old bones at the surface under a rock overhang did cause problems. We raised the issue of what to do about them at a meeting of owners. One faction wanted them buried at the same spot, another wanted to move them to the Urupa Reserve. The matter remained unresolved for some time but as construction moved closer, the likelihood of interference became greater, although they were not directly in the way of

any pipe work. We talked about it, and I talked with Gary Gay, the Project Engineer, and Bill Waiwai a senior MWD engineer on site, and we decided it was better to bury them where they were. The next time I visited the site I looked across to this place and saw some very large boulders had been deposited there. Bill had organised it and I thought, good, no one will disturb them now.

Other provisions during construction included suppressing noise levels near the Marae, protection of access along the old river bank road that connected with Te Toke Road for owners and for the School bus. There were also provisions for landscaping the area around the Marae and other reserves and tidying the site generally after commissioning. There were also provisions for removal of trees on site, any remuneration for these to go to the Trust, and for negotiation with the trustees over use of land not required during operation of the power station. Finally we had to provide for the removal of improvements and making the site safe when the power station was no longer operating.

Cabinet Works Committee approval for construction was given in late October 1982 and within weeks MWD bulldozers were clearing the site for the power station and cooling tower.

Views of Ohaaki power project site from the power house looking across Reporoa Valley to the Kaingaroa Forest: *top* construction work, May 1984; *middle*, view from the power house, 1986; *bottom*, the completed steam field pipework in 1989 (Electricorp photo).

9. The Ohaaki Liaison Committee

The inaugural meeting of the Ohaaki Liaison Committee was held on 1 December 1983. The concept of a liaison committee comprising representatives of local authorities, relevant government departments and adjacent land owners had already been developed by the Ministry of Works at other major public works projects, for example at Turangi for the Tongariro power project, and for the Huntly Power Station development. Such committees had usually been chaired by the MWD Project Engineer, and in keeping with this pattern, the Ohaaki Project Engineer, Gary Gay, was elected chairman. He expressed the hope that the committee 'would become an open channel of communication between the organisations represented and that points of concern and general matters are discussed freely'. The Ngati Tahu Trust received an invitation to attend, but too late for the first meeting. I was soon deputed by the trustees to represent them and attended most meetings held every three months thereafter. Minutes were kept for each meeting held at the Project Office on site, but the press were not invited, although at times a press release was issued after a meeting.

The Ohaaki Liaison Committee comprised representatives of Taupo County Council and Rotorua District Council, Waikato Valley Authority, Federated Farmers, Zanpro Lucerne (a company using geothermal heat to dry lucerne on the eastern borefield), New Zealand Forest Products (who owned the adjacent pine forest), Ngati Tahu Tribal Trust (Maori land owners), New Zealand Wildlife Service (interest in Waikato River trout and birds in wetlands), Department of Lands and Survey (responsible for farming Crown land in the eastern borefield), DSIR scientists (based at Wairakei), Head Office representatives of NZ Electricity (NZE) a division of Ministry of Energy, NZE District Officer based in Hamilton, NZE Project Engineer, Ohaaki, MWD Geothermal Project Engineer (based at Wairakei), MWD District Officer, Hamilton, and MWD Project Engineer Ohaaki. It was a large and entirely male committee, except for me and Gary Gay's secretary who wrote the minutes. I usually travelled from Hamilton with officials from NZE, MWD or WVA, sometimes all in one car, and this journey and the committee meeting, as well as lunch in the Project Cafeteria beforehand, provided considerable opportunity for informal discussion which certainly assisted me in understanding the technical aspects of the project construction as well as the regional context of geothermal development.

Much of each meeting was taken up with progress reports on construction by the MWD and NZE Project Engineers, and the MWD Geothermal Engineer described drilling and testing of wells for both the Ohaaki Project and current geothermal exploration work at Rotokawa, Ngatamariki, Mokai and Wairakei. The Ohaaki power station was intended to house four machines (2x11.2 MW high pressure sets and 2x46.9MW intermediate pressure sets) generating over 100 MW net capacity. Steam was to be piped from up to 30 wells, averaging about 1000 metres deep.

The cooling tower, 105 metres high and 70 metres diameter at the base, was the most striking feature of the Ohaaki project, and was the first to be built in New Zealand, although there were many built in Europe and North America (see Figures 9 and 10). The estimated total cost of the project in 1983 was some $230 million but by the time of commissioning in 1989 this had escalated to over $300 million.

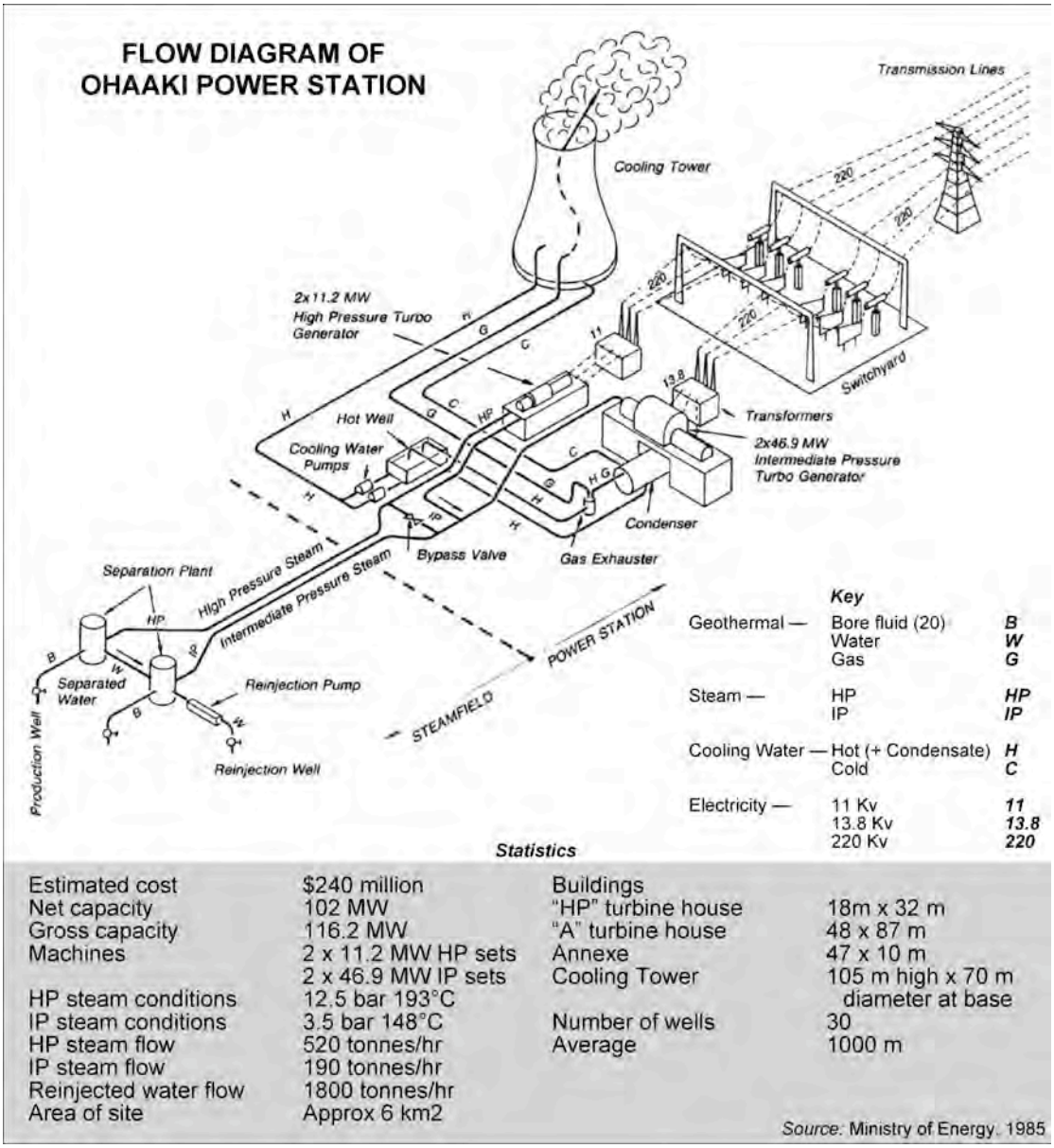

FLOW DIAGRAM OF
OHAAKI POWER STATION
Transmission Lines
Cooling Tower
220
2x11.2 MW
High Pressure Turbo
Generator
Switchyard
Transformers
2x46.9 MW
Intermediate Pressure
Turbo Generator
Hot Well
Cooling Water
Pumps
Condenser
Gas Exhauster
Bypass Valve
High Pressure Steam
Intermediate Pressure Steam
Separation Plant
POWER STATION
STEAMFIELD
Separated
Water
Reinjection Pump
Reinjection Well
Production Well
Key
Geothermal — Bore fluid (20) B
Water W
Gas G
Steam — HP HP
IP IP
Cooling Water — Hot (+ Condensate) H
Cold C
Electricity — 11 Kv 11
13.8 Kv 13.8
220 Kv 220
Statistics
Estimated cost $240 million
Net capacity 102 MW
Gross capacity 116.2 MW
Machines 2 x 11.2 MW HP sets
2 x 46.9 MW IP sets
HP steam conditions 12.5 bar 193°C
IP steam conditions 3.5 bar 148°C
HP steam flow 520 tonnes/hr
IP steam flow 190 tonnes/hr
Reinjected water flow 1800 tonnes/hr
Area of site Approx 6 km2
Buildings
"HP" turbine house 18m x 32 m
"A" turbine house 48 x 87 m
Annexe 47 x 10 m
Cooling Tower 105 m high x 70 m diameter at base
Number of wells 30
Average 1000 m
Source: Ministry of Energy, 1985

Figure 9.

Ohaaki power project construction 1986-87: *left top*, pipework from BR17 to flashplant under construction in middle distance and cooling tower on skyline; *left bottom*, pipework from power house to cooling tower; *right,* turbine under construction in the power house.

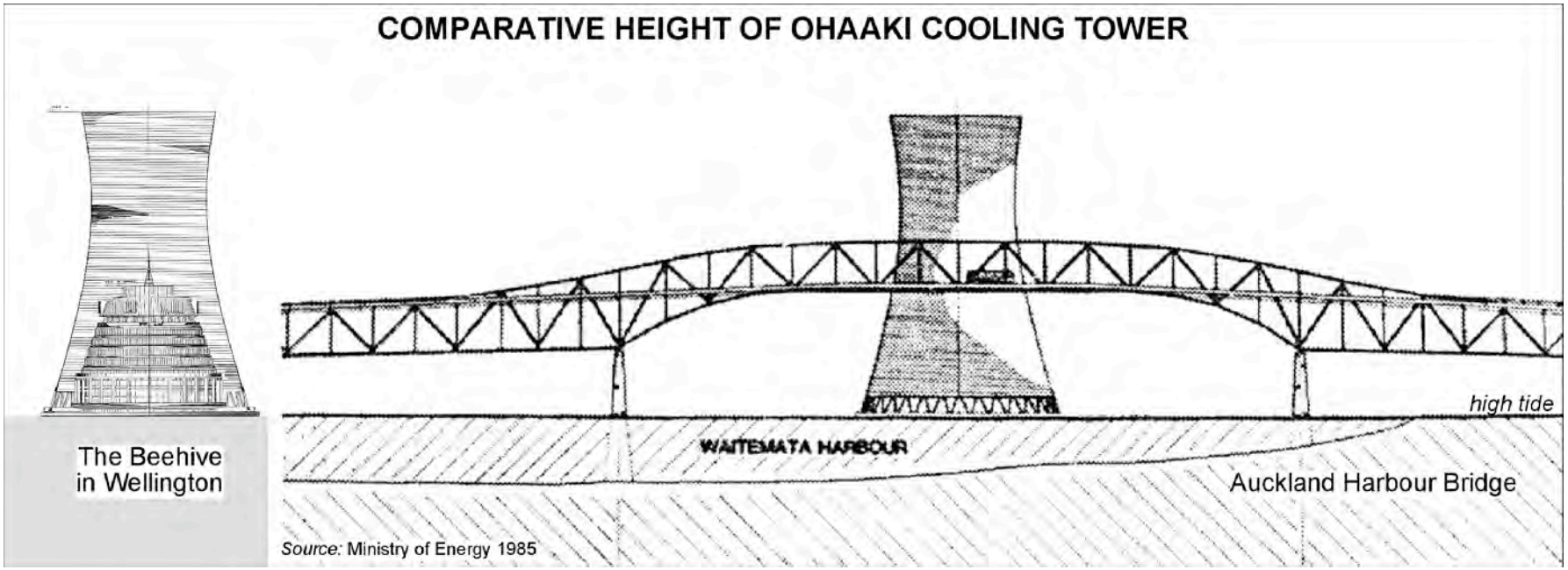
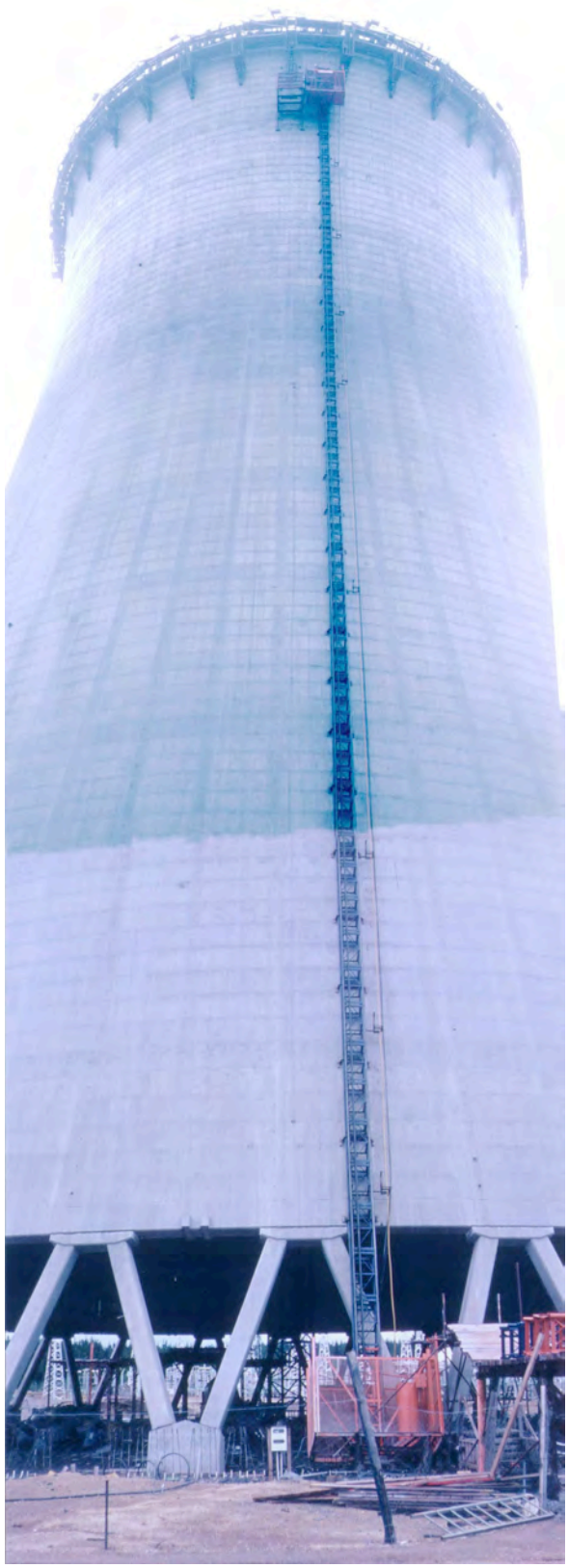

COMPARATIVE HEIGHT OF OHAAKI COOLING TOWER
The Beehive in Wellington
high tide
WAITEMATA HARBOUR
Auckland Harbour Bridge
Source: Ministry of Energy 1985

Figure 10.



Construction of the cooling tower, Ohaaki power project: *top left*, the hole for the foundation, August 1985; *bottom left*, building up the rings of concrete, July 1986; *right*, the tower takes shape, May 1987.

The geothermal reservoir consists of hot water and steam drawn from the geothermal wells and separated at a flash plant/separator on the borefield, the steam going on to the power house. The residual hot water was to be piped to reinjection wells. These were initially old wells drilled during the exploration stage but which proved unproductive for power generation, but later specific reinjection wells were drilled. The intention was not only to prevent undesirable chemicals (such as arsenic, mercury, boron, lithium and others) from entering the Waikato River, but also, by reintroducing water to replace the drawn-off steam, subsidence of the ground on the borefield would be much reduced. Once the steam has passed through the power house to generate electricity it is piped to the cooling tower where it is condensed and the resulting hot water also reinjected into deep wells.

While the engineers and scientists were primarily interested in the technical aspects of geothermal power development, the local authority representatives were also concerned with housing and employment issues. A decision had been made to house project staff in Taupo, not on the Ohaaki site. By June 1984 a total of 84 houses for staff had been acquired or constructed, and a single person's hostel for 20 residents. It was assumed that wage workers would be recruited from the local region, from Turangi to Taupo. In 1983 it was envisaged that peak employment would reach 550 comprising MWD 250, NZE 200, and independent contractors 100. In December 1983 the Project Engineer reported that, without any advertising, over 1100 applications for jobs on site had been received. At that stage there were 36 staff and 61 wage workers employed but the construction programme was six months behind. The following figures for MWD and NZE employment on site were derived from the Ohaaki Liaison Committee minutes, but no figures were available from contractors.

	MWD		NZE		Total
	Staff	Wage Workers	Staff	Wage Workers	
1983 Dec	36	61	n.a.		97+?
1984 March	30	76	15	16	137
June	32	80		[42 total]	154
Oct.	36	87	24	23	170
1985 April	40	92	29	31	192
Oct.	43	95	32	37	207
1986 March	47	97	41	43	228
Sept.	47	125	55	67	294
1987 April	51	184	62	90	387
Oct.	54	183	68	122	427

No figures are available for 1988 but by this time the MWD employment was being reduced as the civil engineering work was nearing completion. The first machines in the power house were commissioned by October 1988, and NZE employment was also reduced until the other two were commissioned in 1989.

In March 1984 Gary Gay provided a break down of 'the total personnel recruitment' on the project.

Rotorua, Murupara and Whakamaru	4%
Reporoa District	7%
Turangi	22%
Taupo	68%

By 1983 the final stages of the Tongariro Power Scheme were being completed in the Rangipo North Project (where Gary Gay had been Project Engineer) and many of the MWD workforce had moved on to the Ohaaki Project. Many kept their homes in Turangi and commuted. A daily workers' bus also ran from Taupo where all new housing for staff and 'key wage workers' was located.

During negotiations toward a lease of the project site, Ngati Tahu trustees had explored the possibility of building in some provision for employment of local Ngati Tahu people. We did not push this in the end because there were unresolved problems of skill requirements for the various jobs on site plus requirements of the various trade unions to be met. A number of Ngati Tahu and other Ngati Tuwharetoa hapu members were already employed by MWD at Turangi and elsewhere, and they moved on to the Ohaaki Project. Periodically, some unskilled labour was required and the Project Engineer put the word around through the trustees and local people who arrived first on the scene got the jobs. This informal arrangement worked well during the duration of construction. Industrial relations generally on site remained good, with only a few stoppages, one resulting from PSA action affecting staff, and another resulted in lost time of several days on the construction of the cooling tower while site agreements were negotiated with carpenters', labourers' and drivers' unions. The industrial safety record on site also remained well below the national average for lost-time incidents on heavy construction work of this kind.

Among the range of issues discussed at the Ohaaki Liaison Committee were environmental matters such as water rights and discharges to the Waikato River and the impact on wild life as well as water quality. There was concern over whether emissions from the cooling tower would exacerbate fog conditions in the Reporoa Basin. In response to a question at the March 1984 meeting:

> Mr Gay replied that the main gases would be H_2S and CO_2 with small amounts of other gases. The clean air requirements [under the Clean Air Act] ensure that these gases are dispersed. Mr Rutherford [NZE] added that five sites will be selected in the valley with three sites being continuously monitored to record H_2S levels. If the 'Cooling Tower' does not perform as expected other processes to disperse the gases will be considered….
> Mr Gay replied that the tower was not expected to cause any significant changes and no specific contingency plans had been developed. Meteorological measurements over a number of years had indicated that the Broadlands/Reporoa area was already subject to a higher than average incidence of fog.

Another issue which concerned the Federated Farmers representative in October 1985 was 'that the water table was dropping in the Broadlands Valley' and was this connected with geothermal development. Barry Denton, MWD Geothermal Engineer advised 'that no connection had been detected' and Gary Gay 'added that very little geothermal fluid had been taken at Ohaaki'. A WVA hydrologist reported 'that WVA had been measuring wells in the Hamilton and Tokoroa area over a number of years and determined that the reduction in the water table in these areas coincided with a decline in average rainfall'. There was also some discussion of the impact of geothermal steam extraction on the Ohaaki Pool. This issue is reviewed in chapter 11.

The cooling tower and power station, Ohaaki, May 1987

In a discussion on use of local roads by construction traffic at the Ohaaki Liaison Committee, 31 October 1984, the local body representatives expressed concern about Broadlands and other roads. The Project Engineer, Gary Gay, explained that MWD vehicles were instructed to use the state highways, but no instructions were given to contractors bringing materials to the site. An Electricity Division Head Office representative suggested that if evidence was produced of adverse effects then it would consider a contribution towards the cost of replacing the three one-way bridges on Broadlands Road. However, Tutukau Road would not be used, he said. In this context I asked whether Taupo County Council was going to accept the Ngati Tahu offer of transferring Te Toke Road to the council 'free of charge'. The County Engineer, Paul Sampson, 'replied that existing legislation prohibited acceptance unless it was up to standard'. What he meant was that in order to accept it the Taupo County Council would have to spend a lot of money to upgrade it. There was no way local Maori could afford the kind of money needed. It was several years later before Taupo District Council took over this road. At the 10 April 1985 meeting the Rotorua District Council representative reported that funding had been received for the upgrading of the remaining two one-way bridges on Broadlands Road, and one had already been done, with assistance from the National Roads Board, but I don't know whether Ohaaki Project funding was used. There was also regular discussion of amenities grant funding under the '1 percent clause', s.11(2)(g) of the Electricity Act 1968. This issue which was particularly significant for Ngati Tahu is reviewed in chapter 10.

In the press release issued after the December 1983 meeting of the Ohaaki Liaison Committee, the Ohaki Project Engineer:

> Mr Gay stressed that the project was a joint venture being constructed by the Ministry of Works and Development, responsible for civil construction, and New Zealand Electricity, a division of the Ministry of Energy, responsible for the electrical and mechanical installations. There would also be a considerable amount of work carried out by contract and to date 30 contracts had been let locally with a value of $3 million.

Until early 1987, when NZE was faced with the restructuring of the Ministry of Energy, the Ohaaki project proceeded in much the same way as other large public works constructed by MWD on behalf of the Crown. At the April 1987 meeting John Wright, who had been the NZE Ohaaki Project Engineer in charge of electrical and mechanical work, advised the Liaison Committee that all former NZE employees were now employed by the new State-owned enterprise Electricorp. Within Electricorp a number of subsidiary companies had been established and from 1 January 1988 Ohaaki would come under the control of the subsidiary Design and Construction Company. Gary Gay noted in this discussion 'that the Ministry of Works and Development's role would be more formalized as a contractor to Electricorp'. Existing Crown water rights at Ohaaki would be transferred to Electricorp. In October 1987 Gary Gay 'reported the commercial arm of the MWD will become a State-owned enterprise from 1 April 1988'.

Behind the terse comments recorded in the minutes lay a major culture change in the management of large public works projects, which was part of the major restructuring of government departments in the mid 1980s. The effect of restructuring on

Inside the cooling tower on a winter day in June 1987: looking up to the blue sky above and standing in the Reporoa fog below.

geothermal policy is discussed in chapter 12. On the Ohaaki project site work went on as before but I perceived definite changes in the hierarchy of authority in the Project Office. It was a stressful time for all concerned, especially as restructuring led to uncertainty about career options and a number of redundancies. The former senior NZE engineers who survived the restructuring to become employees of Electricorp also had to learn how to become corporate managers. In the Project Office this meant that Electricorp staff there acquired a dominant management role while MWD was relegated to the role of contractor providing services for Electricorp.

One day, soon after the new board for Electricorp took over, the Chairman, John Fernyhough, arrived at Ohaaki as part of a familiarisation tour of power stations. I had gone to Ohaaki with a WVA hydrologist to talk about some water rights matters and do some field checks. It was pouring with rain, a lot of surface water about, and we managed to get stuck in a newly dug flooded drain across a road on site and had to get one of the MWD bulldozers to pull us out after our own attempts failed. We arrived at the Project cafeteria, wet and muddy, expecting to get the usual cup of hot soup to have with our sandwiches and relax. We had barely sat down when John Fernyhough and his entourage, all in city suits, entered. There was a brief speech of introduction and welcome by the Electricorp manager at Ohaaki. John Fernyhough then spoke, outlining the new structure of Electricorp etc. and then called for questions. There was a deafening silence in that crowded cafeteria. I wanted to ask questions but it did not seem the time or place to open my mouth in that frosty male silence. The visitors quickly withdrew to eat their specially provided lunch in another room. We all got on with our lunch and the noise levels in the cafeteria went back to normal.

The Ohaaki Liaison Committee did not meet again under the new corporate structure. I also found that I had to learn about the new structures, and in Wellington deal with a series of young managers on the various subsidiary companies set up within Electricorp. The productive friendly relationships that had developed with the former Electricity Division of the Ministry of Energy were swept away. The senior power development engineer, Stan Wong, who had been so understanding of Ngati Tahu aspirations, was made redundant. Brian McGlinchy stayed for a while in a new role but soon found a new job outside Electricorp. I found the liaison role between the Wellington corporate and the Ngati Tahu trustees that I had been entrusted with had to be renegotiated with a new hierarchy. I did get a chance to question John Fernyhough though. By this time I had been appointed to the Government's Energy and Minerals Advisory Committee, and we had the boards of the new State-owned enterprises, Electricorp and Coalcorp, appear before us to explain their longer-term energy policies. However, by the end of 1988 this committee had also been made redundant.

Meanwhile, the Ngati Tahu Trust got on with its obligations to administer its lands. We settled the amount of compensation, after some debate about valuation of geothermal land. We negotiated separately compensation for each of the Maori blocks crossed by the 220Kv transmission line from Wairakei. We finally reached agreement about the lands required for the project, including an additional area in the north for a reinjection well. The farm blocks to the south toward Te Toke which were leased by the Maori Trustee we returned to the Maori Trustee once the transmission line compensation was finalised. We received some extra cash from trees taken from the project site and sold for pulpwood. We reached agreement that lands between

pipeworks and not required would be replanted in commercial pine forest, but other areas would be landscaped with native species. On Tauhara North 2 block in the mid 1980s we had to negotiate with Department of Lands and Survey which returned the block to owners' control via Department of Maori Affairs. The block had been part of the Rotokawa Development Scheme, but separate accounts had not been kept, and fencelines were not on the boundaries, and this took time to sort out. As I describe in Chapter 12, Tauhara North 2 was on part of the Rotokawa Geothermal Field and we had to cope with various proposals for sulphur mining and exploitation of geothermal resources there. In the next two Chapters I outline the issues concerning the development of Te Ohaaki Marae and protection of the Ngawha Reserve.

10. Marae Development and the 'Amenity Grant'

Section 11 of the Electricity Act 1968 set out the provisions empowering the Minister of Electricity (later Minister of Energy) to 'construct and maintain works for generation and supply of electricity'. At s.11(2)(g) provision was made for the Minister to:

> Provide public amenities in connection with any projected works at a cost not exceeding one percent of the estimated capital costs of these works or in connection with existing works within limits defined from time to time in conjunction with the Minister of Finance.

This provision became known as the 'amenity grant' or the 'one percent fund'. The amenity grant had been used by local authorities to pay for a number of public amenities where power schemes had been constructed elsewhere. At Huntly Power Station the provision of funds to upgrade the adjacent Waahi Marae facilities had been the subject of considerable debate whether a marae was a public amenity. This was resolved by treating this marae as a special case which did not have to involve the local authority. I had been involved with some of these negotiations conducted by Robert Mahuta so I was aware of the processes and arguments involved in securing some of the one percent for a marae.

In February 1982 New Zealand Electricity (NZE) produced a revised set of guidelines for applicants for grants from the amenity fund:

- The intention of providing some form of amenity is not by way of compensating individuals or groups of individuals but rather to recompense the community for any intangible losses in natural amenities or pleasantness of life which it may have incurred due to the construction or presence of the station.

- It is important to note that the one percent of estimated capital cost referred to in the Act is the limit of authority delegated to the Minister of Energy, and is not a set amount that is made available.

- The extent to which public amenities may be provided will be influenced by the impact of the project, the structure of the community affected, amenities otherwise available to the community, and the ability of the community to utilise and service additional amenities.

- It is considered most important that any money allocated for public amenities should be spent in a manner which will bring the greatest and most lasting benefit to the community as a whole for the expenditure involved.

- It is most desirable that any amenities provided should be identifiable with the project and enhance the power station environmentally. It is considered that appropriate amenities are those of a recreational or cultural nature, and would exclude direct services or infrastructure required for the project.

- Where the amenities provided are not constructed and administered by the Crown, only requests for assistance under this Subsection made via the statutory body or bodies representing the area in which the community concerned resides should be considered.

- All submissions so received should relate to a specific NZE project and should be considered together in relation to each other and not independently.

- Any assistance given in terms of this clause, should be granted only after all local authorities affected by the project have produced an overall amenities programme and there should be no assistance given on a piecemeal basis.

- Assistance is given only for "public" amenities and this is taken to be amenities owned and administered by the Crown or the local territorial authority or representative body. Assistance is not made available to individual sporting or other organisations for facilities which are restricted to use by members of that organisation only.

On 1 March 1983, following informal discussion with NZE officials in Wellington, I sent a submission to Taupo County Council seeking support for funding of development at Te Ohaaki Marae under s.11(2)(g) of the Electrictiy Act. I set out the responsibilities of the Ngati Tahu Tribal Trust to develop the marae, 'keep the marae warm and make it a place that Ngati Tahu can be proud to come home to and reinforce their ties with tribal lands and heritage'. I then reiterated some of the material already presented in the hearings on designation of the land, the legacy of the ancestor Ngataroirangi who brought geothermal resources, the long occupation by Ngati Tahu, depopulation and dispersal of the people, their desire to retain ancestral lands and use the land wisely for the benefit of all:

> We see the development of the marae at Te Ohaaki as being a project which falls within the provisions of Section 11(2)(g) of the Electricity Act 1968. It has already been demonstrated at Waahi Marae, Huntly, that a marae is a public amenity within the terms of this Act, and funds have been spent there as part of the Huntly Power Project. Because Te Ohaaki Marae is adjacent to the Ohaaki Power Project site, any development of the marae will also enhance the environmental qualities of the project as well as help recompense the people of Ngati Tahu for the considerable changes that are occurring in their traditional environment. Most important of all, the marae is the focus of Maori community life and there are many intangible social benefits in upgrading the facilities and strengthening the role of the marae in the local community. The Ngati Tahu Tribal Trust has already embarked on a programme of marae development, beginning with the restoration of the meeting house, Tahumatua. The building has been re-blocked and re-roofed, and the carvings restored with the assistance and expertise supplied by the N.Z. Historic Places Trust and Department of Maori Affairs in Rotorua, a Labour Department PEP Scheme and local volunteers assisting the contractors concerned. Apart from the grant of $1000 from the N.Z. Historic Places Trust, the total costs of this project in the vicinity of $12,000, have been borne by the

people themselves without benefit of government subsidy. However, the resources of the people are limited and we seek assistance from the Ministry of Energy under Section 11(2)(g) of the Electricity Act to continue the marae development programme and maintain the impetus and boost to local self esteem that the meeting house restoration has created.

We seek assistance in the following areas:

1. Dining Hall: The present building was constructed in the 1920s, is unlined and is in poor repair. The kitchen facilities are inadequate. The building does not conform to any modern building standards and the structure is not sufficiently sound to warrant renovation. We see no alternative but to replace the building….

2. Ablution Facilities: The existing toilet blocks and pool behind the meeting house are inadequate and are a potential health hazard when large numbers of people stay at the marae. As part of the lease agreement, the Crown has undertaken to provide hot water to the marae to replace the supply that was lost when geothermal exploration began some years ago. All parties agree that the present arrangements are temporary and unsatisfactory. We seek assistance in constructing suitable toilet, shower and bathing facilities to make best use of this hot water supply. In the past, Te Ohaaki Marae was noted for its hot pools. We want to re-establish this amenity at the marae.

3. Road Access and Landscaping: The road presently known as Ohaaki Road [now named Piripiri Road] provides access to the Urupa Reserve but from the Urupa to the Marae is a Maori Road which has been used by Ministry of Works, DSIR and others to gain access to the project site. Some assistance may be needed here to upgrade and landscape this area as part of the overall landscape plan for the project site. We are particularly concerned about the appearance of the Ngawha Reserve. As part of the lease agreement the Crown has undertaken to maintain a supply of hot water to maintain levels in the existing hot pools. The silica formations around the pools are unique and it is the public interest, as well as of Ngati Tahu, to ensure their preservation. There is public interest in seeing these pools and although the Ngawha Reserve is a Maori Reservation, the public have never been excluded from the area.We seek some assistance in landscaping this area of hot pools and sinter formations, including expert advice on maintaining the distinctive ecology of this piece of hot ground, so that the public who wish to view the pools gain a better impression of the place.

I also raised the question of upgrading Te Toke Road to public road standard and some provision for amenities at Te Toke Marae, although it was outside the jurisdiction of the Ngati Tahu trustees. Provision for Te Toke Marae was negotiated much later, as I explain below.

In due course a committee was set up comprising two members each from Taupo Borough, Taupo County and Rotorua District Councils, and co-ordinated by Taupo County planner, Peter Crawford, who also acted as secretary. This group, which

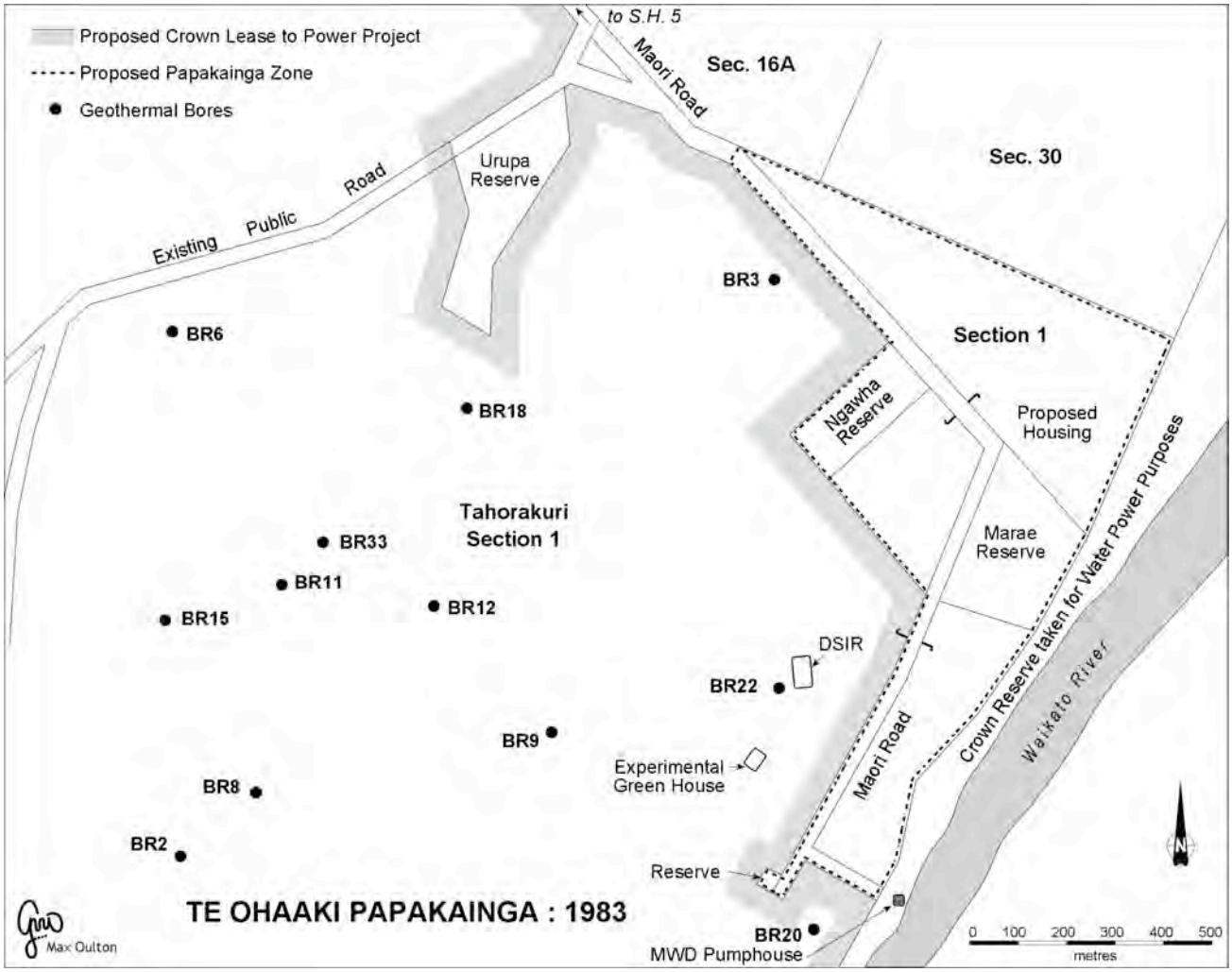

Proposed Crown Lease to Power Project
Proposed Papakainga Zone
Geothermal Bores
to S.H. 5
Maori Road
Sec. 16A
Sec. 30
Urupa Reserve
Existing Public Road
BR3
BR6
Section 1
BR18
Ngawha Reserve
Proposed Housing
Tahorakuri Section 1
BR33
Marae Reserve
BR11
BR12
BR15
DSIR
BR22
BR9
Experimental Green House
Maori Road
Crown Reserve taken for Water Power Purposes
Waikato River
BR8
BR2
Reserve
TE OHAAKI PAPAKAINGA : 1983
BR20
MWD Pumphouse
Max Oulton
0 100 200 300 400 500
metres

Figure 11.

called itself the Combined Local Authority Ohaaki Public Facilities Fund Committee, met on several occasions through 1983. Peter Crawford asked me to provide information on the Huntly Power Project amenity grants, in particular the provisions for Waahi Marae, which I did. After a meeting of the Committee on 1 September at which procedures were discussed, it was decided to call for all submissions to be lodged by 2 November 1983. In his letter to me advising me of this, Peter Crawford added:

> In regard to your submission relating to the Ngati Tahu people the Committee feel that project would not comply because of its lack of public content. I think that you are already aware of this from our earlier correspondence. I have however been asked to discuss the matter further with you to see if some public content is possible in regard to your project which appears essentially for one group of people – Ngati Tahu.

My response, after some discussion (I was not surprised, nor was I pleased at the Committee's attitude) was to prepare another submission, with a plan of Te Ohaaki Papakainga (Figure 11), which set out an argument that a marae is a public amenity:

> The Marae is the focus of Maori community life, a community facility, a public amenity in every sense of the term. The Marae is the meeting place for the tribe, where various rituals and ceremonies are performed, in particular tangihanga, but also weddings, birthday parties, family reunions and other social gatherings, as well as meetings on land or other issues, and church services. At every Marae gathering there are initially two groups of people: tangata whenua, the home people or hosts, and manuhiri, visitors. During the formal welcome, powhiri, speeches are made and there are allusions to tribal connections and tribal history, accompanied by waiata, songs and chants. Visitors are thus formally welcomed to the Marae, they come forward and greet the hosts, and thereafter both visitors and hosts mingle freely and participate in whatever is going on.
>
> The focal point of the Marae is the meeting house, usually named after an important ancestor of the tangata whenua. The mauri, life force or spiritual strength of the people is embodied in the meeting house. The symbolism of the house (with the ridge beam, tahu, as the back bone, the rafters, heke, ribs, the arms in the maihi, barge boards, and main support beam inside, pou toko manawa, representing the heart), embodies ideas of hospitality, warmth and support inside the body of the ancestor, and continuity of the communal identity with the Marae and ancestors. The meeting house is more than just a public hall and meeting place although it performs many of these functions. The dining hall, in contrast with the tapu of the meeting house, is the area where the catering is done, the things of the body, noa or commonplace. These are the complementary functions of the two main structures on the Marae. The ablution block and toilet facilities are also necessary and may be attached to one end of the dining hall or separate, for these too are noa.
>
> The mana of the tangata whenua is reflected in the quality of the Marae facilities, and their ability to provide hospitality for their guests. Modern Marae provide the setting for a variety of activities ranging from social

functions, providing accommodation for sports teams and cultural groups, the base for seminars and courses in Maori culture for schools and other groups, church services, the setting for meetings of owners and sittings of the Maori Land Court and occasionally other formal judicial hearings. The Marae is public in that everyone is welcome who wishes to attend a function on the Marae. Only in very exceptional circumstances is anyone turned away or removed from a Marae gathering. It is acknowledged that because much of the proceedings may be in the Maori language, a large proportion of Pakeha people would not attend a Marae function but they would be welcomed if they did. Not all the population uses other public amenities either but they are available if they wish.

The land and buildings of a Marae are communally owned, usually under the provisions of a Maori Reservation set aside under Section 439 of the Maori Affairs Act 1953….

Te Ohaaki is the principal Marae of Ngati Tahu. Among the beneficial owners of lands vested in the Ngati Tahu Tribal Trust are some 800 names. Many of these are deceased, but with successors and families of existing owners the number of people with Ngati Tahu connections probably exceeds 3,000. Many other tribal groups also visit Te Ohaaki, particularly during a tangi. The Marae thus caters for hundreds of these people, Maori and Pakeha, and occasionally for groups of overseas visitors to the Geothermal Power Project. The Marae would be used a good deal more, if the dining hall and toilet facilities were better. The low standard of these facilities is a source of some embarrassment to the Ngati Tahu Tribal Trust and Te Ohaaki Marae Committee….

The Ministry of Energy guidelines suggest that the amenity funds are not intended as compensation "but rather to recompense the community for any intangible losses in natural amenities or pleasantness of life" as a result of "the construction or presence of the power station". It is because the Marae is the central focus of a Maori community that the Ngati Tahu Tribal Trust sees the construction of a new dining hall as an appropriate community facility, "identifiable with the project and enhance the power station environmentally", and the facility can be described as supporting both "recreational" and "cultural" activities.

With respect to other guidelines, clearly the people associated with Ohaaki Marae are "influenced by the impact of the project". The Marae community is very scattered but the Marae remains the focal point to which Ngati Tahu people return, to maintain their ties with ancestral land and the tribal community, and maintain their standing with other tribal groups. There is no other facility which would provide this role and function within Ngati Tahu….

The Trustees believe that "the greatest and most lasting benefit to the community as a whole" is the upgrading of Te Ohaaki Marae. The benefits are firstly for Ngati Tahu, who, with improved Marae facilities, can make better use of the Marae for a wider range of activities. A wide range of outside groups can be welcomed, accommodated and given hospitality. As such the

> upgrading of the Marae will benefit the whole Maori community in the Taupo district. In due course, when good quality Marae facilities are established, many other interest groups, not specifically Maori, may want to use the facilities. It is possible that in future, parties visiting the Ohaaki Power Project can be catered for on the Marae. Thus the role of the Marae as a community facility extends well beyond Ngati Tahu.

I set out the legal status of the Marae Reserve and the Ngati Tahu Tribal Trust, and outlined the provisions for Waahi Marae and the Huntly Power Project under s.11(2)(g) of the Electricity Act. I then summed up my submission:

> The Waahi Marae and Huntly Power Station situation provides a useful precedent, but there are some different elements too, which suggest the Ohaaki situation must be negotiated according to local needs in the Taupo district.
>
> Te Ohaaki Marae has been properly gazetted as a Maori Reservation under Section 439, Maori Affairs Act 1953, an inalienable reserve set aside "for the common use and benefit of Maori peoples generally". This gives it the status of Maori public land.
>
> The Ngati Tahu Tribal Trust has been properly constituted by the Maori Land Court under Sections 438 and 439, Maori Affairs Act 1953, which provides a statutory base for administration and servicing of the Marae as a public amenity. The Trust has appointed its own solicitor and accountant and has the administrative structure to carry out its obligations to provide and maintain communal facilities.
>
> The Ngati Tahu Tribal Trust, because of its particular constitution and statutory base can be regarded as "a representative body" which can own and administer public amenities for the Ngati Tahu and Maori people generally.
>
> Although Te Ohaaki Marae is likely to be used more by the Maori public, this use is not exclusive or restrictive. Hopefully, in future, more Pakeha people will become interested in things Maori. The upgrading of Te Ohaaki Marae will not only strengthen Ngati Tahu and the local Maori community, but also contribute to longer-term improvement in race relations in the Taupo district.

In a letter dated 18 November 1983 Peter Crawford wrote to me advising the outcome of the meeting on 9 November of the Combined Local Authority Ohaaki Public Facilities Fund Committee which had considered all applications for amenity grants:

> The Committee has instructed me to advise you that they have considered the Ngati Tahu Trust's submissions in terms of the above mentioned guidelines and that the Committee was of the opinion that the Trust's application fell outside the guidelines. In particular the Committee were concerned that there was no existing or established community which could be said to be affected by the Ohaaki project. Further the Committee were of the opinion that the Trust did not form a public body or organisation.

> Accordingly, I must advise that your submission was not included amongst those recommended to the Minister of Energy for his consideration under section 11(2)(g) Electricity Act 1968.
>
> However, I advise that your submission has been passed on to the Minister for his own consideration.

When I reported this to the next meeting of the Ngati Tahu trustees, the Secretary was instructed to obtain copies of the minutes of the relevant meeting of this Committee and all relevant documents from Taupo County Council. These were supplied in mid December, including copies of all the applications for grants. The minutes of the 9 November Committee meeting were not verbatim and simply noted that there was 'general discussion' on the Ngati Tahu relationship with the project. Following the recommendations listed for funding was a separate resolution:

> That the Ngati Tahu Trust be advised that the Committee had considered the Trust's submissions in terms of the guidelines and was of the opinion that the Trust's application fell outside of the requirements as there was no existing community affected by the proposal and that the Trust did not form a public body or organisation.

There was no resolution in the minutes to the effect that the Ngati Tahu application would be supported in any way. However, in his letter to the Minister of Energy, Hon. W. F. Birch, on behalf of the Committee setting out it's recommendations, Peter Crawford noted that the Ngati Tahu and other submissions had been sent on to the Ministry of Energy:

> On close examination of the Department of Energy's criteria for consideration under section 11(2)(g) Electricity Act 1968 the Committee is of the opinion that the Ngati Tahu Trust application could be treated as a special case.

Without waiting for these documents I had already compiled a set of papers outlining submissions and negotiations to date and sent them off with a letter to Mr Birch, and copies to the Minister of Maori Affairs, Hon. Ben Couch, and Peter Tapsell, MP for Eastern Maori in whose electorate Ohaaki was now located. In my covering letter to Mr Birch I stated that we had been advised that we were not eligible for funds:

> We disagree entirely with this interpretation and consider it the prerogative of yourself as Minister of Energy, to decide eligibility under the guidelines to section 11(2)(g) of the Electricity Act, not Taupo County or any of its committees. We therefore appeal to you to consider our application for assistance to develop Te Ohaaki Marae which is adjacent to the Power Project site as a community facility for the benefit of Ngati Tahu and all the people of Taupo district.

After outlining negotiations to date I then dealt with the reasons that had been given for our application falling outside the guidelines:

> 1, That there was no existing or established community which would be affected, and 2, that the Ngati Tahu Trust is not a public body or organisation.

> To answer the second charge first: in addition to all the provisions set out in our second submission concerning the legal status of the marae and the trust, I should point out that the Ngati Tahu Tribal Trust is also a leasing authority within the meaning of the Public Bodies Leasing Act 1969 under the provisions of s.235A of the Maori Affairs Act, which allowed us to lease the land for the Ohaaki Geothermal Power Project to the Crown on terms outside the Maori Affairs Act which were more appropriate to the Crown's requirements. The notice was published in the *New Zealand Gazette* 16 July 1981, No. 85, p. 1972. We would not be happy with the interpretation that we are a public body when the Crown wants something from us, but we are not a public body when we are asking for something from the Crown.
>
> We are much more deeply concerned about the Committee's interpretation that there is no community at Ohaaki. This really indicates a failure to understand the nature of Maori organisations and the role of a marae in Maori community life. There is still a Maori community focussed on Te Ohaaki. If there were not, you would not have received such determined opposition to the sale of the land and such determination to preserve the Maori values involved in this situation. We would like to think that in the long negotiations leading to the lease agreement we have reached a mutually convenient and amicable compromise, a partnership between the Maori owners and the Crown in a public enterprise. We would like to continue this partnership in the development of the site….
>
> We hope that you will support our efforts to upgrade the marae facilities which will not only enhance the project site but be of long-lasting benefit to the marae community and enhance the mana of Ngati Tahu that they may feel pride in themselves and their heritage.

On 2 December 1983 Birch responded to my letter by saying he would 'examine the matter further before writing to you'. On 9 January 1984 the Acting Minister of Energy, Hugh Templeton wrote (Birch was overseas), acknowledging the similarities between the Waahi Marae/Huntly Power Project and Te Ohaaki Marae which 'has already, or will inevitably be affected by the presence of the Ohaaki Power Project, I am prepared to give special consideration to your proposals for development at Te Ohaaki Marae'. He also requested estimates of costs, in order to determine the level of funding to be granted. He concluded his letter:

> I too would like to see a continuation of the partnership between the Maori owners and the Crown in association with the Ohaaki Power Station, recognising that the community based on Te Ohaaki is the only community immediately adjacent to the power station.

I knew that we had a good deal of support from officials in NZE in Wellington, Stan Wong in particular. Peter Tapsell had also written to Birch on 9 December 1983:

> You will I am sure know the special position in which Maori marae are now and always have been, in that while they are technically private property and governed by trustees, they are nevertheless in every other sense a public amenity. Marae are in the main open to everyone and I know of no occasion

> when any member of the public has been refused admission or prevented from taking part in what amenities the particular marae offers. Any other interpretation would clearly demonstrate a total ignorance of the function of a marae….
>
> One would have thought moreover that this particular marae should have enjoyed first right of application, not only because the people associated with that marae have lived there for generations, but because it was after all their land.

Peter also wrote to Taupo County and Rotorua District Councils (who did not respond) and campaigned for marae to be included in the s.11(2)(g) guidelines as of right.

The Ngati Tahu trustees held a series of meetings with owners and the marae committee and employed Bob Lockie, a retired land surveyor and planner in Rotorua, to produce detailed plans and estimates for a new dining hall and ablution block, kokiri/kohanga reo, and landscaping of the marae. Work was already proceeding on refurbishing the meeting house. I sent all these on 28 February 1984 and on 4 April Mr Birch replied that he had 'in mind an amount of up to $250,000 at present day costs as an appropriate level for funding the Ngati Tahu Tribal Trust proposals'. This was less than our estimates that were over $400,000. We therefore focussed our efforts on producing plans and estimates for the dining hall and ablution block. In due course much of the landscaping work we asked for around the Marae and Ngawha Reserve, was carried out by Ministry of Works as part of the overall landscape plan for the Ohaaki project.

There is no need to go into the tedious detail of our efforts to get an architect (most were too expensive), getting quotes for buildings and the arguments among various owners and marae committee about design and so on. These were the normal kinds of thing any Maori trust that gets involved with marae development has to deal with. In due course we considered all the quotes and accepted a plan and quote for Lockwood buildings for the dining hall and ablution block. There were two major constraints on building on this site. One was the possibility of subsidence of ground levels once the power station was operating. We did not know how much, or how long this would take, but we considered it wise to construct the kind of building that could be transported elsewhere if required. The other constraint was the sulphurous atmosphere from geothermal steam emissions from the cooling tower, flash plants and natural activity in the area. The power house, for example had to be clad with aluminium, and for the same reason we needed an aluminium roof, and the baked-on aluminium cladding of the Lockwood timber structure met these requirements.

In September 1984 the new Minister of Energy, Hon. R. J. Tizard, had confirmed the commitment of up to $250,000, a figure which had soon become public knowledge. At the Ohaaki Liaison Committee meeting on 31 October 1984 a Rotorua District Council representative 'asked what the Ministry of Energy grant to the Ngati Tahu Trustees would be used for'. My reply, according to the minutes of this meeting, was 'that it would be used for the same purposes which the unsuccessful application for a public amenities grant sought'. I was having a swipe at the local territorial authorities who had turned down our application, and explained that the same application had

The new dining hall, Wairakewa, at Te Ohaaki Marae in 1989: *top left,* construction of shelter for marae speakers; *bottom left,* varnishing the furniture; *right,* putting the finishing touches on a new flagpole.

been sent to the Minister of Energy, Hon. Mr Birch. The minutes only recorded: 'Principally this is [for] the replacement of the dining hall and ablution block'. John Rutherford, from NZE Head office, advised the meeting:

> that the amenities grants had been approved in principle only and specific approval for each project would be given when satisfactory plans and specifications were submitted. Payments would be made from Ohaaki Project Office and the approved sums would be escalated using the MWD Construction Cost Index.

Once Ministerial approval had been given the process for us was to negotiate directly with John Rutherford in Wellington and with Gary Gay, MWD, on site. We had no further involvement with Taupo County Council on this issue. While we had numerous trustee meetings and hui at the marae, the detailed negotiation with NZE in Wellington fell to me.

It is relevant to consider the $250,000 for Ngati Tahu in relation to the recommendations of the Ohaaki Public Facilities Fund Committee, in the following list alongside the grants approved by the Minister:

Public Project	Recommendation 1983	GrantApproved 1985
Broadlands Hall replacement	$100,000	$100,000
Taupo Civic Centre	$1,250,000	$241,350
Grandstand, Regional Sports Ground, Taupo	$413,000	$413,000
Kohanga Reo building, Reporoa	$10,000	-
Reporoa Hall extensions	$35,000	$35,000
Reporoa Squash and Tennis Club buildings	$125,000	$40,000
Reporoa St John's Hall Extensions	$30,000	$20,650
Waipahihi Hall, Taupo	$150,000	$150,000

These were not final figures as all the grants were subject to escalation provisions and some were renegotiated, including the Reporoa Kohanga Reo which I explain below. Progress on projects funded by the amenity grants was reported regularly to the Ohaaki Liaison Committee. At the meeting on 19 March 1986 the Rotorua District Council reported all the other Reporoa Projects were completed. In Taupo, work on Waipahihi Hall had begun and the new grandstand was well underway. Both were completed by September. However, by the 12 October 1987 meeting it was reported some negotiations were continuing: 'There is no resolution on how grant for Taupo Civic Centre will be used'. Nor do I know how this was finally resolved. The same meeting was told, 'The special grant to the Ngati Tahu Tribal Trust is continuing with the dining room and amenities block now completed and water/steam supply in hand', and 'Work at Te Toke Marae is substantially complete'.

In April 1986 I wrote to John Rutherford, confirming our discussions to date and enclosing submissions for funding of amenities at Te Toke and Matarae Marae. I also reported the tenor of discussion at a hui at Te Ohaaki Marae on 20 April:

> As a general comment the point has been made by several speakers at Ngati Tahu tribal hui that the amenity funds spent on "community facilities" such as squash courts at Reporoa, the Broadlands Hall and facilities in Taupo are of little benefit to the local Maori community. Marae are appropriate community facilities for Maori people. There is a good deal of local Maori feeling that Maori people are "missing out again". Given the high levels of Maori unemployment in the Reporoa district, the local fund raising capacity for communal facilities is limited.
>
> The people of the three marae, Te Toke, Te Ohaaki and Matarae, are all Ngati Tahu and closely related. Te Ohaaki is the principal papakainga, but was depopulated in the 1960s, when the proposed land development scheme did not go ahead and geothermal exploration began. Many moved to Te Toke, into houses purchased from the Wairakei Power project. The meeting house, Te Rama, was built in 1964. Matarae, is the ancestral name of the meeting house, a brother of Te Rama, at Reporoa. Matarae Marae also caters for many Ngati Whaoa, a tribe of mainly Te Arawa descent who belong in the northern portion of the Reporoa basin, and who have long-standing kin linkages with Ngati Tahu.
>
> It seems to me that if amenity funds are to benefit the Maori community of Reporoa district, then money would be well spent on upgrading the communal facilities of these Ngati Tahu marae.

I also enclosed the following submission for an amenity grant for Te Toke Marae, with the support of the Ngati Tahu Tribal Trust:

> The Te Toke Marae Committee request assistance up to $35,000 for upgrading and extension of kitchen facilities in the existing dining hall. Plans and estimates have been prepared and a building permit obtained from Taupo County Council. Copies of these are attached. The estimates provided do not include provisions for GST or inflation. This work is urgently needed in order to provide a more efficient kitchen and meet health requirements in catering for large visiting groups at tangihanga and other gatherings. The Te Toke community comprises a dozen or so households in the immediate vicinity, with other kin living in the Reporoa-Taupo area who periodically come to this marae. The meeting house was built in 1964. In recent years the ablution block was upgraded with the assistance of a subsidy on local fund raising by the Maori Affairs marae subsidy scheme. The Marae Committee have been raising funds for the kitchen extensions but at this stage have only about $1500 in their building fund.

After further discussions with John Rutherford, the Minister wrote to me on 30 September 1986 that he had approved a grant for the 'upgrading and extensions of Te Toke dining hall up to a cost of $40,000 (in September 1986 dollar terms)'.

I also submitted a request for funds from the Reporoa Kohanga Reo Committee for a building to be sited at Matarae Marae. The minutes of the Ohaaki Public Facilities Fund Committee recorded a recommendation on 9 November 1983 that a grant of $10,000 be allocated for 'Kohanga Reo building, Reporoa'. The Kohanga Reo supervisors, however, reported at a hui in April 1986 that they had heard nothing more about their request for funds. I explained the situation in the rest of my submission:

> Since then [1983], the church hall used by the Kohanga Reo has burned down. Some temporary accommodation was arranged in a school house. This year however, the Kohanga Reo has been operating in the old dining hall at Matarae Marae. This is most unsatisfactory, despite some repair work done by the KR Committee to meet the requirements of a licence to operate as a preschool. The hall is large, draughty and unheated. There is a fireplace in the kitchen which is used for cooking, but this area is not suitable for small children. The facilities are even less desirable in the fog and frost of the Reporoa winter. While the meeting house could be used for some activities, it is not appropriate for all, and food may not be taken there. It is not heated either.
>
> The importance of the Kohanga Reo movement is in providing "a language nest", so that young Maori children may become effectively bilingual, proficient in their own language and cultural identity, and so better able to cope with the needs and stresses of a modern multicultural society. This is the only Kohanga Reo in the Reporoa district, which regularly caters for about 10 children, and potentially up to 20. The present Kohanga Reo provides a marae-based school programme for Maori children. All four local primary schools in the Reporoa district provide Maori programmes. There is a well-established Maori studies programme at Reporoa College, which has it's own carved meeting house and marae.
>
> The proposal now is to establish a separate building at Matarae Marae for a Kohanga Reo. The Marae trustees have agreed to locate such a building on the marae reserve, an area of some nine acres in all. Such a building could also be used for a general meeting room, facilities for a Kokiri-work skills centre for teenagers, a venue for adult classes in Maori language, and craft skills. The Committee have in hand some $3,000 in their building fund and further fund raising is in progress. An establishment grant of $5,000 has been promised by Maori Affairs but this is for equipment and operation, not for a building, and assumes the premises will meet the requirements for a licence for a preschool. The KR Committee have considered relocating an existing building but have not yet found one suitable. One suggested alternative is purchase of a "Skyline" garage as a shell, to be upgraded by local labour. However, a building with properly insulated walls is more appropriate. The alternative is to construct a new building, say a kitset shell house with basic kitchen and toilet facilities. An estimated cost of this is up to $30,000 depending on the amount of voluntary labour for a new or existing building.

The Kohanga Reo building was duly funded and constructed at Matarae Marae. As with Te Toke Marae, the detailed supervision was left in the hands of the respective

marae committees. The role of the Ngati Tahu Tribal Trust was simply to coordinate submissions and provide support for these local projects. I also sought funds for Matarae Marae:

> The Marae Committee have asked for assistance with upgrading the dining hall, at an estimated cost of about $80,000. Detailed costings are not yet available. However, the building is badly in need of repair, although some work has been done by the Kohanga Reo committee. The kitchen facilities are badly in need of improvement. Cooking is done on an open fire and there is one power point used for heating water as required. The meeting house is in the process of being restored by voluntary local labour and PEP workers.

This project was not immediately funded as detailed plans and estimates had not been provided by the time NZ Electricity became a State-owned enterprise, Electricorp, and the Electricity Act was repealed. However, the Matarae Marae committee did continue their own fund raising for their new dining hall. Some years later the Ngati Tahu Tribal Trust, after a resolution at a meeting of owners, made a substantial contribution to this project from funds accumulated by high interest rates on our investment in the 1980s of the lump sum paid for the lease of the Ohaaki land.

By the end of 1986 the Ngati Tahu Tribal Trust had been able to support and obtain some funding for development at three Ngati Tahu marae. However, these developments were not just a matter of throwing in some money. There was also substantial involvement by local people in fund raising, volunteer labour and constructive use of the Labour Department's PEP schemes which soaked up some of the high levels of unemployment in the Reporoa district.

The Re-opening of the Meeting House, 24 October 1989: *top,* Te Arawa entertain the crowd on the marae; *middle,* some of the crowd on the marae; *bottom,* planting trees, donated by Electricorp, near the marae entrance after the dawn ceremony, left to right, Gillian Deane, John Wright, Juliet Hensley, Bishop Takuira Mariu, Nick Wall, Ian Thain (backview) and Ruhia October (the people bending over not identified).

11 The Ngawha

A major concern of Ngati Tahu owners was that geothermal exploration, drilling and testing of wells, resulted in the loss of heat and hot water in the numerous pools in the sinter apron near the marae. A particular concern was the drop in water level in the Ohaaki Pool in the Ngawha Reserve. There was already resentment of the loss of the hot springs and wahi tapu along the Waikato River when they were flooded by rising levels of the hydro lake Ohakuri in 1962. As a result of this concern the trustees included the following provision in the Memorandum of Heads of Agreement in 1982:

> … and the lessee in consultation with the lessors and the trustees of the Marae Reserve and Ngawha Reserve shall discharge mutually agreed quantities of geothermal water into the Ngawha Reserve subject always to the availability of the resource and the continued commissioned operation of the power station.

As I explain later, there were considerable technical problems to be worked through in order to do this when the power station was close to commissioning date. Over several years I attempted to document past surface geothermal activity at Ohaaki by going through old Maori Land Court minute books, other published sources and discussions with kaumatua of Ngati Tahu, as well as exploring the project site on the ground, to establish the nature of the former landscape at Ohaaki and Ngati Tahu relationships with this geothermal environment.

At the northern end of the geothermal field, at Waimahana, as its name meaning warm water implies, there was some geothermal activity. In his evidence in the Native Land Court in 1899 Hare Matenga stated:

> [Te Waimahana is] a stream from a ngawha, a waiariki – a warm stream running out from the base of the hill… there was a large tuahu belonging to N. Tahu at the source of that stream it was the tuahu of that land, it was the place where Rangipatoto, Te Rama etc. used to hold their karakia (Taupo MB 12/296).
>
> … [Waimahana] the river falls from a height into Waikato that was how it was when I was young but now it runs in another direction and the old bed is dried up – the stream runs into Waikato higher up (Taupo MB 13/173).
>
> … at the source of the Waimahana where it bubbles up out of the ground, it was a tuahu in Te Rama's time, in Rangipatoto's down to Te Tua down to Wharewhiti and down to Whawhati – it ceased in Whawhati's time, he was the last tohunga who used it. On the establishment of Christianity, this was dropped. Whawhati was living then (Taupo MB 13/176).

The tapu was removed from the Waimahana tuahu, an altar or place for karakia, prayers, according to Hare Matenga, after the arrival of Christianity (Taupo MB 13/188). There is no trace of the warm stream now, although a warm seep has been reported. A search by Ministry of Works geothermal engineers in the early 1980s indicated no surface activity, probably because of disturbance during clearance of the

land for farming and changes to subterranean water pressures as a result of geothermal exploration and testing of wells.

There are few descriptions of the geothermal area around Te Ohaaki Marae in the nineteenth century. CMS missionary Rev. A. N. Brown recorded it in his map of kainga in the 1840s but did not describe it in his journals. Rev. Richard Taylor passed through Te Ohaaki on a journey from Taupo to the Rotorua district in 1845:

> We came to a place abounding in hot springs puias whose deposit is so great as to be forming a siliceous stratum, here there is a pa Kowhaki [Ko Ohaaki] but we found no one within it (Journal 21 November 1845).

Te Ohaaki remained off the beaten track for nineteenth century tourists, and indeed few outsiders took any interest in this geothermal area until the Ministry of Works began exploration in the late 1960s and leased much of the area.

The evidence given to the Native Land Court in 1899 about the geothermal resource at Te Ohaaki was at times confusing and contradictory, although there was no argument that this was an ancestral legacy belonging to Ngati Tahu. Nepia Matenga argued that the mana of the ngawha vested in Te O and was derived from the ancestor Matarae who lived there permanently, hence the name Te Poho o Te O given to one of the hot pools near the large Ohaaki Pool. Te Ohaaki had been permanently occupied from Tahu's time 'because of the ngawhas there' (Taupo MB 13/18) and likewise there had been a smaller kainga at Parehawa (Parehaoa). Nepia Matenga also tried to establish a particular mana in Tukumaru and Takiri, that if they were away, no one could use the ngawha except surreptitiously, but agreed that all Ngati Tahu had rights to bathe there. He was questioned by the Court whether the ancestors 'looked on a waiariki as such a valuable thing as we look on it?' The reply was: 'Oh yes they knew its value, on a cold day to get in and sit in it, and to clean dirt – there were many ngawhas at Ohaaki… Other ngawhas were owned by others' (Taupo MB 13/21).

Nepia Matenga went on to describe three ngawha at Te Waiongohe which belonged to Te Ipu and Te Arai and their descendants. The ngawha called Otutepo belonged to descendants of Hinewai, and was used for cooking. There were also cooking places at Te Awapiripiri. 'Above Te Waiongohe it is a steam hole, cooking place. Te Umu o te Whakakehu is on the bank of the Waikato' (Taupo MB 13/22). This is possibly the place labelled Konukukehu on the old ML plans as hot spring and bath, rather than an umu or earth oven. He described the ngawha Te Poho o Te O as a place where cloaks were steeped to soften them (Taupo MB 13/23). This was close by the ngawha Te Korokoro o Tawharangi; 'the sides of the latter are steep, one side of it is approachable, you can get down by a rope' (Taupo MB 13/29).

Hare Matenga in his evidence denied that the mana of the Ohaaki ngawha vested in Takiri. 'That was not so, all N. Tahu had mana to that ngawha, the N. Tahu who lived at Ohaki' (Taupo MB 13/36). He went on to state that Te Poho o Te O was really called Te Poho o Whakarawataua, who 'was the mother of Rama and Matarae. I deny the name Te Poho o Te O'. He also questioned the name Te Korokoro o Tawharangi:

> Not that name, that name was created in this Court. I know the ngawha. Te Waipatu Kakahu was its name. It is not at the place Nepia says, it is near the

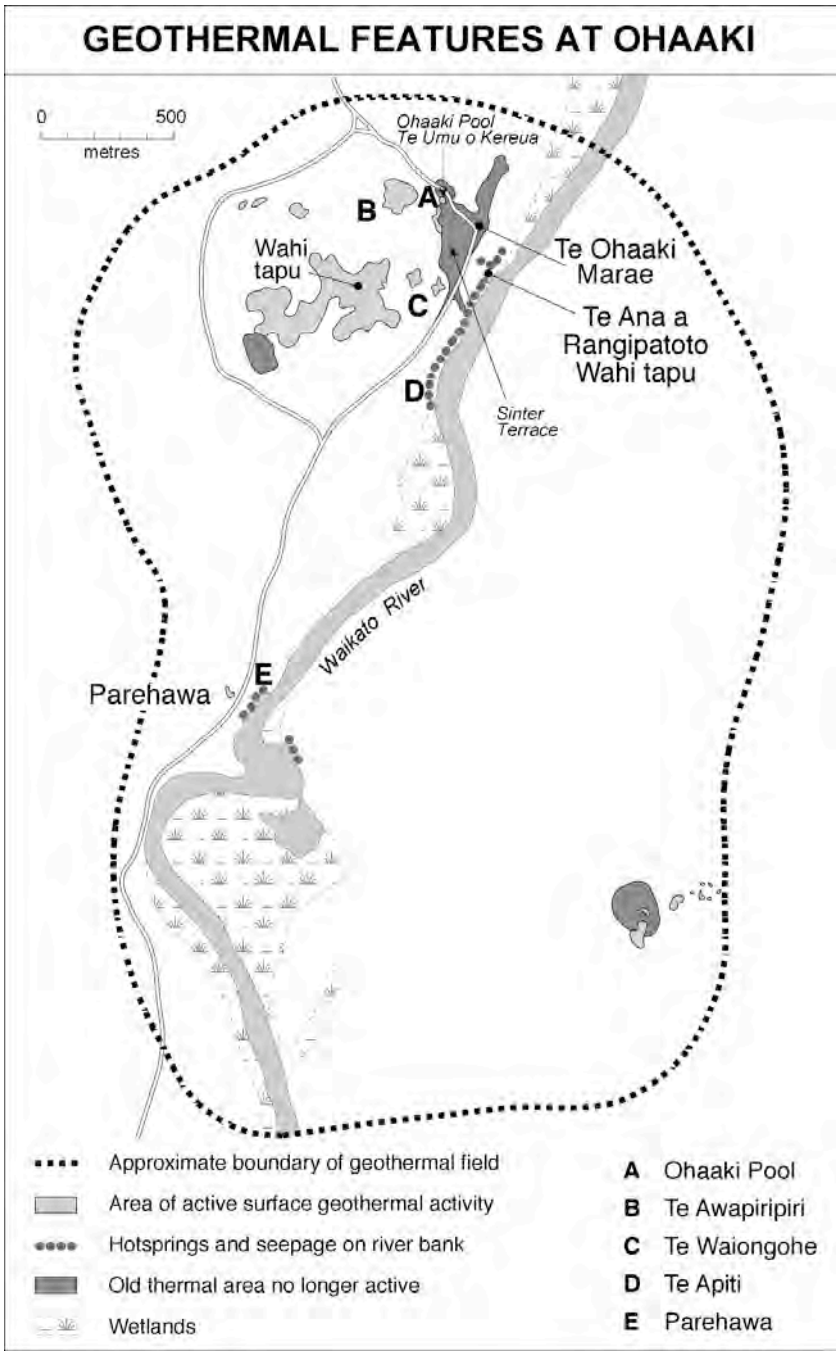

GEOTHERMAL FEATURES AT OHAAKI
0
500
metres
Ohaaki Pool
Te Umu o Kereua
A
B
C
D
E
Wahi
tapu
Te Ohaaki
Marae
Te Ana a
Rangipatoto
Wahi tapu
Sinter
Terrace
Waikato River
Parehawa
Approximate boundary of geothermal field
Area of active surface geothermal activity
Hotsprings and seepage on river bank
Old thermal area no longer active
Wetlands
A Ohaaki Pool
B Te Awapiripiri
C Te Waiongohe
D Te Apiti
E Parehawa

Figure 12.

ngawha at Ohaki about three chains or less distant; that he calls Te Poho o Te O is half a mile from Ohaki ngawha. [Te Waipatu Kakahu belonged to] N. Tahu who lived at Ohaki – if a man had a korohunga (a mat with a fancy border) he would beat it there to soften it. No other garment would be so beaten.

[Te Waiongohe belonged to] N. Tahu who lived at Ohaki – that was where they cooked their food. [It did not belong to Hinewai who] went there to cook her food, so did other women, it didn't belong to Hinewai more than to any one else (Taupo MB 13/36-37).

Hare Matenga also denied that there were cooking places at Te Awapiripiri, unless some had been made recently. Later, when cross-examined Hare reiterated that the ngawha were not owned by anyone in particular 'All the N. Tahu who lived at Ohaki owned the Ngawha there'. He denied any personal rights of Te Tua to Otutepo as well. When questioned about rights to steep korohunga in Te Waipatu Kakahu, Hare replied: 'Any one who had any; in those days those who had them went there, those who didn't didn't go' (Taupo MB 13/67).

Te Whiwhi Matatahi also gave evidence at the same hearing and, in response to a question by the Court, stated:

There were many ngawhas at Ohaki – some for bathing, some for cooking, some for steeping [mats etc].

Who had mana of these – A. The descendants of Rama and Matarae who lived there permanently (Taupo MB 13/49).

Many of the old names and locations of hot pools and cooking places are forgotten now, although in 1980 kaumatua did identify Te Piripiri (the urupa reserve area) and Te Awapiripiri (the stream below it). Te Ana a Rangipatoto, Te Apiti and Parehawa (Parehaoa). The large pool in the Ngawha Reserve was called Te Umu o Kereua, but several kaumatua said they preferred to use the name Ohaaki Pool, not wishing to publicise the incident that gave rise to the old name. All the riverbank springs were flooded by the hydro lake Ohakuri in 1962. The destruction of much of the surface area by Ministry of Works bulldozers in the process of drilling geothermal wells has made it very difficult to reconstruct the original sites. On Figure 12 the area of surface geothermal activity is shown, derived from an unpublished DSIR plan compiled in the early 1970s. In summary, differentiated use areas can be derived from the evidence in Native Land Court minute books and kaumatua as follows:

A. Ohaaki Pools: The principal pool is Ohaaki Pool (Te Umu o Kereua) which provided the main source of hot water for bathing in pools dug out of the sinter terrace between this ngawha and the marae. Immediately to the south are two substantial hot pools: Te Poho o Te O, or Te Poho o Whakarawataua, and Te Waipatu Kakahu or Te Korokoro o Tawharangi. The latter was used to steep mats and cloaks to soften them.
B. Te Awapiripiri: This was an area of mud pools and hot ground, drained by a small stream, which may or may not have been used for cooking. The modern urupa, Te Piripiri, is on much higher ground to the north.

C. Te Waiongohe: This extensive area contained a number of hot pools, steam vents and hot ground and was the principal cooking area for Te Ohaaki, including a pool called Otutepo.
D. Te Apiti: On the riverbank, now flooded, was an alum hot spring of this name. Nearby was a 'paruparu place', an area of dark mud used for dyeing flax fibre, according to kaumatua.
E. Parehawa: This was a small kainga with a bathing pool on the riverbank and cooking holes (umu) away from the river in an area of hot ground.

Two wahi tapu areas in the vicinity of Te Ohaaki Marae were the sulphur cave, Te Ana a Rangipatoto, which was a tuahu, and the cave of the taniwha, Makawe, on the riverbank, which was said to be connected to Ohaaki Pool. Away from the river, in a large area of hot ground containing numerous deep holes, some containing mud or hot water, was an area difficult of access, and dangerous to enter, that was used as an old burial place. The modern burial ground is at Te Piripiri, the gazetted Urupa Reserve.

The full name of the marae is Te Ohaaki o Ngatoroirangi, a reminder that the geothermal activity in the region is part of the ancestral heritage of Ngati Tahu, the legacy of Ngatoroirangi. At Te Ohaaki the main thermal area is near the marae. The big ngawha, now known as the Ohaaki Pool, is of considerable historic significance to Ngati Tahu. Although the ngawha itself was set aside in 1971 as a Maori Reservation under Section 439 Maori Affairs Act 1953, there was still a good deal of concern over the long term effects of geothermal development on water levels in the ngawha with changes in subterranean water pressures from the production wells nearby. There were also ochre beds in the thermal area here. Mud and hot water from selected spots in this area had special curative powers, particularly effective in the treatment of sores and other skin complaints. One place of special significance was Te Ana a Rangipatoto, from which a white substance was extracted and mixed with water from the Ohaaki Pool:

> The Ohaki natives possess a wonderful great boiling pool with a beautiful lacework pattern around the edges – the most handsome pool in the whole thermal area. They have led the overflow into two useful baths in which the temperatures can be controlled. It is a peculiar fact that a heavy southerly wind causes the water to fall below the outlet and the overflow ceases. When first I saw this I thought something was about to happen, but the Maoris assured me there was nothing unusual about it. They also have a "champagne" pool (that is one which will effervesce when sand is thrown into it), numerous small cooking pools, and a beautiful sulphur cave (Vaile 1939, p.16).

This cave was probably Te Ana a Rangipatoto. Vaile also remarked on 'a valuable hot bank' at Te Ohaaki where 'they cook their bread. It saves the trouble of making a fire' (ibid p. 52). The geothermal activity had not only a practical usefulness to the people, but also a traditional historical and cultural significance in this marae community which is difficult to define in Pakeha terms. A similar comment can be made about several other wahi tapu, sacred places, the burial grounds, both the gazetted Urupa Reserve and others on the site, the sacred rock which has been gazetted as a reserve, the cave in the Waikato River near the marae (now flooded by

Te Ohaaki Marae, Ngawha and sinter terrace: *left*, view across Ohaaki Pool and sinter area to the marae; *right*, Polly Tahau standing beside cooking holes in the ‘hot ground’ in the sinter terrace.

the upper reaches of the hydro lake Ohakuri) which is the abode of Makawe, the protective taniwha of this papakainga, and the wahi tapu associated with this taniwha.

Grange provided a brief description of the hot springs at Ohaaki in his New Zealand Geological Survey Bulletin on the Rotorua-Taupo district:

> Thermal activity at Ohaki itself is now confined to an area of about 20 chains [402m] square on the low flat bordering the Waikato River, but formerly it extended south-west for about half a mile [0.8km] into the low hills. The springs are clear and alkaline in reaction. Ohaki, the largest, about 3 chains [60m] in diameter, has a temperature of 94°C and boils up in two places. It is bordered with fretted, white sinter, and its overflow has encrusted a wide area with sinter. Much gas bubbles up in two small nearby springs (77°C and 79°C). A mile [1.6km] up the river from Ohaki there is a luke-warm pool close to thermally altered ground, and a stream of gas-bubbles rises from the river close at hand (Grange 1937, p. 97).

An unpublished Geological Survey report, dated 26 June 1957 and supplied by DSIR Wairakei, provided a more detailed description of the Ohaaki Pool:

> Ohaki is one of the largest hot springs in the thermal district, having an approximate area of 750 sq. metres, and is certainly the most beautiful. The water has built an extensive, gently sloping sinter terrace, and the spring is remarkable for its white, fretted sinter edge which is being built out over the water in intricate scroll designs. The local Maoris have used the water from the spring for bathing purposes, diverting the water by way of a ditch dug across the sinter terrace to an open air bath on the edge of the terrace, adjacent to the pa. As a result of the diversion of the water from the terrace the sinter is disintegrating. Overflows measured in 1952 by D. R. Gregg and in October 1955 by L. I. Grange are comparable: 9.4 litres per second and 9.0 litres per second respectively. Several chains south of Ohaki are other alkaline hot springs, the majority of which have not overflowed for many years, or do so spasmodically, and on higher ground to the south-west is an area of acid sulphate pools and steaming ground which probably supported alkaline activity when the Waikato River was higher than at present.

On 25 March 1957 the water in Ohaaki Pool had overnight 'receded to a level below the overflow ditch', a drop measured on 2 April at '2ft 5in' (0.73m). A Mr Hardcastle who lived nearby, a kilometre from Ohaaki, reported that on 24 March he had 'heard subterranean noises "like falling earth" which, he ascribed to a portion of the Waikato river bank caving in'. However, no evidence was found of this. 'Inhabitants of Ohaki Pa state that they neither heard nor saw anything unusual that day'. Three geologists visited on 2 April:

> The water in the pool was clear. Temperatures were approximately 3°C lower than those measured previously and the usual vigorous bubbling activity at the south-western end of the spring was less active. No strong convection currents were noticed in the water.

The temperature was measured at 94°C, the same as Grange reported in 1937, although the geologists in 1957 suggested this was lower than other measurements taken, but they acknowledged that so few measurements had been taken that they did not regard a 3°C drop as significant:

> An investigation of the surrounding springs did not produce much additional information. None were overflowing, though the water in several had recently stood at higher levels. There was no evidence to suggest that "normal" heat flow from Ohaki was escaping elsewhere, in fact, indications were that the overall heat flow from the whole area had decreased.

One of the Ohaaki residents was questioned 'but was not very helpful, but it does seem certain that Ohaki [Pool] has receded previously, but had never been known to go down that far, and only for a matter of hours or days at a time. Certainly not for weeks'.

On 18 April 1957 Ohaaki Pool 'was reported to be overflowing again' and the geologists visited again on 24 April:

> Not only was the discharge flowing down the dug ditch, but there was water spilling over the lip all round and flowing away over the terrace. It was quite impossible to make an accurate measurement of the overflow, but a minimum figure of 23 litres per second was obtained, showing a substantial increase over previous measurements of 9 litres per second. The south-eastern portion of the spring was extremely active, bubbling up constantly to a height of three feet [0.91m] with occasional surges reaching five feet [1.5m]. The temperature in the active portion was 98.7°C, which will be about boiling point for the altitude of Ohaki (970 ft.a.s.l.) [295m above sea level].
>
> Ohaki was not the only spring in the area showing signs of increased activity. The group of alkaline springs several chains south of Ohaki were all overflowing, and one was geysering. This spring has an elongated opening, and is surrounded by a grey sinter terrace. Geyser action occurred approximately once every hour, and a considerable volume of water was ejected, almost emptying the basin.

The geologists speculated on the cause, dismissed the suggestion that there was any major change in overall heat flow of the geothermal area, and concluded that the explanation lay in deep-seated 'mechanical causes; probably the feeding channels becoming blocked by earth movements, and later clearing themselves as pressure increased below the blockage'. The geologists also dismissed as 'ridiculous' the press reports which 'gave considerable publicity to complaints by local natives that the recession of Ohaki [Pool] resulted from geothermal drilling at either (or both) Wairakei and Waiotapu'. The chemical content of water varied in the three areas which precluded a common source, and in any case, the effect of any geothermal drilling would have been gradual over a period of years, not a sudden loss of water.

The Ohaaki Pool was visited again on 5 June 'and was found to be still overflowing the terrace'. The rate of discharge appeared to have decreased, but 'was still considerably more than the "normal" discharge' before the sudden drop in level on 25

March. The report concluded: 'Due to the bad weather, and an obvious hostility on the part of the natives, the inspection was brief, and no quantitative measurements were made'.

In the late 1960s DSIR scientists and MWD engineers began more detailed investigation of geothermal activity at Ohaaki. A DSIR report in 1967 reviewed the natural heat output of 'Broadlands Geothermal Area' and suggested that there had been changes in surface activity, 'that in the past some ground may have been at higher temperatures than those measured at present'. The areas of 'hot ground' as mapped in 1967 are shown in Figure 12. The report also commented on the hot springs and pools at Ohaaki:

> Apart from the clear, overflowing, sinter surrounded Ohaki Pool and adjacent pools, the majority of pools are grey, or mud coloured, and range in temperature, between 20°C and 80°C. Most pools show some sign of escaping gas, and in some cases excessive surface turbulence indicates large volumes of escaping gas.
>
> The surface water outflow…is restricted to 6 litres [per] sec[ond] which is the combined outflow from Ohaki Pool and smaller features nearby….
>
> On the left bank of the river, extending some 1000 metres upstream from Ohaki Pool, a large number of seepages and hot springs were found at river level. Many of these flows are vigorous, and in most cases, temperatures of flows and seepages exceed 65°C

By this time the riverbank springs had been flooded by Lake Ohakuri, so it was impossible to measure flows accurately. However, it was estimated 70 percent of the total natural heat loss of the field was from these flows through the sinter around Ohaaki and at Parehawa.

In its natural state the surface geothermal activity at Ohaaki was the expression of dynamic processes in the earth below. The drilling of deep wells and discharges for testing in the 1970s had significantly affected natural surface activity. By the early 1980s levels in Ohaaki Pool had dropped, the creamy-white sinter formations weathered to dull grey, and large parts collapsed from the edges into a deep steaming hole. At the Ohaaki Liaison Committee meeting on 21 March 1984 the chief geothermal engineer, Barry Denton, reported that the Ohaaki Pool was 'likely to be affected' when the geothermal field was in full production for the power station. It had already been found that the pool level responded by dropping when nearby wells were tested. Denton suggested that 'we are interested to return a limited amount of geothermal water in an endeavour to keep the level up if this is found to be practical'. By this time 45 wells had been drilled, of which 23, including several near the ngawha, were to be used for production. The engineers were also interested in using Ohaaki Pool as a site for reinjection of hot geothermal fluids which might solve both the problem of raising the water level and disposing of some of the geothermal fluids that could not be discharged to the Waikato River. During the early years of construction nothing specific could be done and water levels in Ohaaki Pool rose and fell according to which wells were being discharged for testing or closed down.

Early in 1987 NZE applied for further water rights to discharge up to 300 tonnes per hour of geothermal water into Ohaaki Pool. The application was advertised by Waikato Valley Authority (*New Zealand Herald* 3 March 1987) but no objections were received, so there was no need for public hearing. The Ngati Tahu trustees were well aware of the proposal, which arose out of the negotiations toward a heads of agreement to lease the land, and I was deputed to represent Ngati Tahu in discussions on site with MWD engineers and WVA staff. I also provided WVA with the historical material I had compiled so that we could establish some sort of baseline for the natural behaviour of the pool against the impacts of exploitation for geothermal energy. I set out the Ngati Tahu position in a letter to WVA on 30 April 1987:

1. There has been some fluctuation in activity of the Ngawha [Ohaaki Pool] in the past but in its natural state, i.e. pre-drilling of geothermal wells, it normally overflowed to the Waikato River.
2. There is a long history of Maori occupation of the area and hot water from the Ngawha has at times been diverted to pools dug in the sinter area between it and the marae, with drainage eventually to the river.
3. There is a good deal of natural seepage to the river in the springs near the marae now under high water levels of Lake Ohakuri which flooded river bank areas, including the cave, after 1962.
4. Our plans include restoration of the Ngawha, to maintain water levels to overflow slightly in order to rejuvenate sinter formation around the margins and part of the sinter terrace.

The engineers and scientists had to address the question of how much of the cooler geothermal fluids to be reinjected into the Ohaaki Pool would be needed to maintain water levels but without 'quenching' or cooling the geothermal reservoir in the vicinity of the neighbouring production wells. The WVA was concerned about preventing any more geothermal fluids than those already flowing naturally from entering the Waikato River. There was also the question of variations in chemical composition of fluids from various wells, and at what temperature and chemical composition would the sinter formations around the pool be best rejuvenated. All were agreed that there should be no discharge into the Waikato River. More tests were done by DSIR on 19 May 1987: the water temperature in the pool was 91^{o}C and chemicals measured in mg per litre were:

total mercury	0.0024
total arsenic	1.7
suspended solids	<1.0
lithium	9.4
dissolved carbon dioxide	50.0
total ammonia	5.8

The Waikato River at Ohaaki was already 'saturated' with toxic chemicals from geothermal sources, so some system of collecting and diverting any overflow from Ohaaki Pool also had to be devised.

A more difficult problem was how to assess the 'natural' state of the pool. A series of temperature measurements was compiled over the period 27 April - 13 May 1987 which indicated fluctuations between 80 and 86^{o}C. On 19 May 1987 the temperature

had risen to 91°C. There had also been some fluctuation in outflow. In a covering letter to WVA with these test results, the NZE engineer responsible for the water rights application commented:

> During these tests, there were no surface inflows to Ohaaki Pool, apart from stormwater, so that the pool could be considered to be in its "natural" state.
>
> It should be noted that 20 May there was a significant increase in thermal activity in the Ngawha, with a consequent rise in outflow (twice) and temperature (4°C). Whether this change is a transient effect or whether a new 'natural" state exists is unknown.

The new water right was issued, but included conditions to prevent any discharge into the Waikato River and continued monitoring of water flows.

Early in 1987 draft landscaping proposals were prepared by MWD and sent to the trustees for comment. After discussion I prepared a detailed response, noting among other things the provisions in the Heads of Agreement to maintain the water level in Ohaaki Pool:

> However, there are several other pools and fumaroles in the extensive area of sinter between BR 22 and the Ngawha and the Marae. We are also aware that when the power station is commissioned, drawoff from the geothermal reservoir can cause changes in surface activity. This has been well-documented at Wairakei in reduced activity in Geyser Valley and increased activity in the Karapiti area. It is not possible to predict precisely what surface changes may occur at Ohaaki, nor guarantee that reinjection will prevent any change in surface activity. We as lessors and the Crown as lessee have a joint liability on public safety matters in respect of present and potential hazards on the site. We are also anxious to restore as far as possible the natural sinter formations and protection of existing pools in the sinter area which were an integral part of the old Te Ohaaki Papakainga.

I also indicated my discussions with DSIR scientists and others had suggested 'that restoration of the sinter area is entirely feasible'. The first priority was 'the scallop formations around the Ngawha and surrounding "apron" of sinter', and the possible long-term restoration of other pools or creation of further sinter terraces which 'could create a very attractive example of coexistence of "natural" surface activity and use of geothermal energy', and a potential tourist attraction:

> For the short-term, Ngati Tahu people feel strongly about the damage that has been done to the Ngawha Reserve and other pools in the vicinity of the marae, and the bulldozing of tracks across the sinter terrace that have all but destroyed the original formations. We ask that high priority be given to the restoration of the sinter formations and protection of hot pools and fumaroles. We acknowledge the uncertainties of possible changes in surface activity following commissioning of the power station and the experimental nature of some aspects of restoration such as inadequate knowledge of flow rates and quantities of water to allow precipitation of silica, appropriate gradients and so on. In the words of one of our elders, when the discharge from BR 22 to the

> Ngawha Reserve was discussed with MWD people some years ago, "You have made such a mess of the place, you couldn't make it worse, so perhaps you might try to make it better."

The MWD people worked well to clear and fence the sinter area between the Ngawha and Marae Reserves, shifted the power lines across it to the new road line and planted the area according to plans we had approved. The engineers and scientists found the maintenance of the water levels more problematic. Levels fluctuated but there had been times when the pool overflowed, the sinter edges became creamy white again and coloured algae flourished in the warm, wet surface of the sinter.

In November 1988 I had discussions with Electricorp engineers in Wellington who expressed some doubts about the feasibility of maintaining the pool at overflow level to rejuvenate the sinter. In December I received a letter from Electricorp:

> Recently the discharge into the pool has been in the order of 150 tonnes/hour and with minimal outflow, the level has been stable but significantly below the top.
>
> While the water rights held give Electricorp the right to discharge up to 300 tonnes/hour into the pool, it is stressed that this is a maximum and under normal operation Electricorp does not expect to discharge anywhere near this volume of water into the Ngawha….
>
> During the current commissioning activities it has been observed that the level of the pool is more or less stable at 150 tonnes/hour but it has been observed that the level falls quickly when inflows drop below 100 tonnes/hour.
>
> It is therefore expected that when the field is in full production the level of the Ngawha will fall naturally as it did in the 1970s unless attempts are made to seal it. If this is not done it is extremely unlikely that it will be maintained at its present level, let alone rise and overflow the silica terrace.
>
> Please be assured that Electricorp will continue to cooperate with the Trust to meet the wishes of the Ngati Tahu in this matter in so far as it is able without prejudicing the operation of the steamfield and power station.

In April 1989, after further discussions with Electricorp engineers in Wellington, I received another letter which, among other things, stated:

> I wish to confirm that no action will be taken on restoring the level of the Ngawha until stable operation of the steamfield has been achieved for some months. In the meantime however the response of the pool will be monitored and our reservoir engineers have been requested to advise on periodic falling of the pool and recommend any other measures that should be taken.

A couple of days later I was sent a copy of a letter from the Geothermal Resource Manager at Wairakei who had been asked to comment by Electricorp Head Office:

> We do not feel there is anything which can be done to remedy the situation short of sealing the pool or part of it. A flow of 300t/h was barely maintaining the level previously at about 2m below the outflow. The level has now dropped to 4m or more and will continue to fall as the reservoir pressure drops. It would take a huge flow to fill the pool even temporarily. This would have an adverse effect on the reservoir.

While Electricorp managers in Wellington equivocated, Gary Gay, now designated Works Project Services Ohaaki Project Manager Ohaaki, sought a feasibility study from a Workscorp, Wairakei, engineer who also obtained advice from a DSIR scientist at Wairakei. The problem was set out in the Workscorp report;

> From recent trials it was found that some 300 to 330 tonnes/hour of geothermal fluid was required to keep the Ohaaki Pool full with little or no overflow. It was found that during these trials BR 22's temperature vs depth profile showed clear evidence of inflows of cooler fluid. It was also noted during these trials that BR 22 wellhead pressure dropped 5 bars.
>
> It became obvious that at these high discharge flow rates into the Pool the steam production life from the wells in this area would be very much reduced.
>
> After discussions … it was considered that disposal of 40 to 50 tonnes/hour could be tolerated by the reservoir but zero discharge into the reservoir would be ideal….
>
> The maximum flow into the Ohaaki Pool is restricted by the parameters. One is the overflow requirements of Water Right 1408 (36 tonnes/hour) and the other is the restriction to preserve the steam resource (50 tonnes/hour max). The maximum inflow into the Pool would be 86 tonnes/hour….
>
> To restrict the inflow into the steam reservoir some of the Pool vents will need to be sealed off with enough vent capacity to avoid any pressure built up underground and reduce the risk of an uncontrolled hydrothermal eruption from occurring.

The rest of the report set out detailed proposals to seal the floor and lower walls of the pool, including sealing all but one of the several vents, with boulders and aggregate overlain by 100mm concrete seal.

On 1 September 1989 I was sent a copy of the proposal by Electricorp, with a request for my urgent approval so that the first stages of the work could be done by the end of October. It was not coincidental that the opening of the refurbished Te Ohaaki Marae and the Ohaaki Power Project by the Governor General was scheduled for the end of that month. I responded immediately, noting the uncertainties in the situation and agreeing that 'the proposals for sealing the vents with a "concrete floor" proposed are worth a try but with the reservation that there is a minimum of interference with the silica formations around the pool edges and upper two metres of the vents'. One of the uncertainties I noted was the increased geothermal activity and surface heating near BR 22 which 'may be a short-term response or may indicate longer-term heat

Ohaaki Pool: *top left,* the Ngawha filled with water and some rejuvenation of collapsed sinter formations, November, 1988, before power station commissioned; *bottom left*, the Ngawha drained in June 1989; *right*, grouting the floor of the Ngawha, October 1989.

increase as has occurred at Karapiti in the Wairakei geothermal field'. I ended my letter with this comment:

> While I expect there may be some adverse comment on the costs of this exercise I think we need to see it as an experiment which has much broader implications in environmental terms. For Ngati Tahu, Ohaaki Pool is very significant and that is why it was included in the Heads of Agreement. However, there is also benefit to Electricorp in being seen to make this effort to alleviate a negative impact of exploitation of geothermal resources… The information gained may well be of value for restoration of other geothermal areas.

The pool looked really beautiful on the day of the Governor General's visit to open the marae and power station. The sun shone on the blue water that lapped at the silica rim of the pool where the scalloped edges were already creamy-white. But that was not the end of the matter as there were still some technical problems, outlined in the news item in the Electricorp Production newsletter Power Points, 15 November 1990:

> Restoration of Ohaaki Pool has been a challenge for Alan Clotsworthy and his team at Wairakei. Alan, geothermal reservoir engineer, says, "I don't think it was appreciated at the time of the agreement [between Ngati Tahu and the Crown] that there was quite a permeable connection to the deeper reservoir. Initially, large flows of water were diverted from a separation plant to keep the pool full. These damaged some production wells. So last year we got permission from the Ngati Tahu trust board and DSIR to put gravel and concrete in to lessen the drainage. This caused fractures so we had to reseal these. Recently we have diverted water from three geothermal wells because their water is hotter and has more silica. Silica is the natural way to seal".
>
> Once the seal is complete they'll go back to rediverting separated water, but in smaller flows. It all goes to show there are no problems – just challenges.

Sadly all this engineering work did not solve the problem. By the late 1990s some of it had collapsed, the water level in Ohaaki Pool dropped and the formerly very hot, high-production well, BR 22, was quenched.

Ohaaki power station and cooling tower in operation (Photo: Electricorp).

12. Changes in Energy Policy in the 1980s

The restructuring of the mid 1980s included a major reorganisation of the Ministry of Energy and government attitudes toward energy resource development. This section is based on a paper presented to a Symposium on New Zealand and the Pacific: Structural Change and Societal Responses, in the School of Social Sciences, University of Waikato, 19-20 June 1987, titled Public Policy and Geothermal Energy Development: the Competitive Process On Maori Lands. It was written from my personal experience of being caught up in the competition for geothermal resources in the Mokai and Rotokawa fields as well as Ohaaki.

The Crown, i.e. central government, is custodian of national energy resources and is ultimately responsible for wise use and allocation. Energy is a resource whose value is related to what it can do – as a means of production, cooking food, transport and so on. As such there are social, cultural, political and strategic issues to be considered, as well as the purely economic, or commercial. There is also a need to distinguish between the Crown's role as custodian and steward of national resources, and the Crown as the agent which develops a resource and supplies energy to its citizens. In both custodian and developer roles there is a need for accountability in the allocation of energy resources, a process which is fraught with potential conflicts of interest. This is particularly so when Maori lands are involved.

The establishment of state-owned enterprises was part of a 'policy of placing state trading enterprises on a normal commercial footing'. Thus the Minister of Finance, Hon R. O. Douglas, explained in an article in the *New Zealand Herald* (25 February 1987):

> It is also the most important move yet made to free up the bureaucratic systems which have prevented state trading operations from making a positive economic contribution. The problem has not been the people in the public service, rather, it has been the crazy stifling systems they have been made to work under.

In the process of freeing up the system, there is a danger that the stewardship role of the Crown will be played down or ignored. In 1987 I felt there was a risk that we may end up with another set of crazy stifling systems. There was also a risk that Maori development initiatives on Maori lands may be stifled by competition for access to a resource such as geothermal energy, which under the Geothermal Energy Act 1953 was owned by the Crown.

Geothermal energy is regarded as a traditional Maori resource, taonga, as defined in Article the Second of the Treaty of Waitangi. The main kainga (settlements) of Te Arawa, Ngati Tahu and Tuwharetoa tribes were and still are in areas of geothermal activity in the Rotorua-Taupo district. This legacy of the tohunga Ngatoroirangi included hot pools which were used for cooking, bathing and processing of fibre. Dye stuffs, in particular red ochre (kokowai), were collected and processed. Hot ground was used for cooking holes and ovens. Mud and water from some pools had various therapeutic qualities in the treatment of muscular disorders, rheumatic and arthritic ailments and various skin conditions. The linking of medicinal or therapeutic qualities to particular places carried certain forms of tapu. Some places have a

particular tohunga associated with them. Some were burial places. Many hot pools, for one reason or another, are still wahi tapu, sacred places.

During 1986 a policy framework for development of geothermal fields was promulgated by the Ministry of Energy which moved responsibility for allocation of the resource to regional water boards by means of the system of granting water rights under the Water and Soil Conservation Act 1967. A geothermal licence was also required under the Geothermal Energy Act 1953 but this would not be issued by the Ministry of Energy until a water right had been granted. The policy also required the regional water board to produce geothermal management plans but there was no statutory obligation to do this (Officials Geothermal Coordinating Committee 1986; Waikato Valley Authority 1987). The following explanatory statement in the Ministry of Energy publication *Energy Issues 1986,* summarised geothermal policy:

> Exploration and development testing of potential geothermal reservoirs is currently funded by the Gas and Geothermal Trading Group. Theoretically, there is no restriction on the investigation and development of geothermal fields. Preliminary surveys of potential fields were carried out by the DSIR. This investigation could be carried out by anyone who can obtain water rights. Licences for use are required under the Geothermal Energy Act since all of the resource is owned by the Crown. In the past the Gas and Geothermal Trading Group and Electricity Division have not obtained a licence since they were both parts of the Ministry of Energy which administered the Act. With the reorganisation of the Ministry, and separation of trading and non-trading functions this has now changed.
>
> Once the required rights and licences are obtained the developer could either sell these rights to a potential user or contract to sell steam from the field to recover exploration and development costs … (Ministry of Energy 1986, pp. 53-54).

In a comment on the new state-owned enterprises the Chairman of the State Services Commission remarked: 'You don't go through changes of that magnitude without creating doubts and insecurity. But you also create new opportunities and behavioural responses" (*New Zealand Herald* 20 May 1987). A substantial portion of three geothermal fields which are in the process of development – Ohaaki (Broadlands), Mokai and Rotokawa – are still in Maori ownership. How were Maori owners to respond to the new set of rules in the power game? What new opportunities were there for Maori people? Is it significant that all this policy making occurred without consultation with Maori people? There was no representative of the Department of Maori Affairs on the Officials Geothermal Coordinating Committee. The decision to assign certain fields as suitable for development in the *Geothermal Power Plan* (Oil and Gas Division 1986) was made without consultation with Maori owners of the land involved. The following case studies illustrate how the new policy was put into practice.

Ohaaki: a public work in the national interest.

Use of geothermal energy for electricity generation began in New Zealand with the construction of Wairakei power station on Crown land in the 1950s. It was hailed as

an innovative and efficient means of energy production. All the waste water was disposed of in the Waikato River under a permit granted before the present system of water rights was put in place in the Water and Soil Conservation Act 1967. About 60 of a total 128 wells drilled were being used in 1987 to produce 140 MW of power for the national grid.

During the 1960s exploratory drilling was carried out in the Broadlands Geothermal Field. This programme was stopped in 1971, to resume in 1974, and within a short time a proposal to build another geothermal power station was being considered by the Electricity Department and Ministry of Works. Environmental and design work proceeded and in 1977 an Environmental Impact Report was published and audited by the Commission for the Environment. Meanwhile, several hydro-electric power stations had been built on the Waikato River. One of these, Ohakuri, dammed up the river so that it flooded two thirds of the Orakei Korako geothermal area (Lloyd 1972). This hydro lake extended upstream to Ohaaki where the springs and hot pools on the river bank at Te Ohaaki Marae were also flooded. The Maori land required for Lake Ohakuri was taken under the Public Works Act. There was little consultation with Maori owners.

At Ohaaki a land development proposal, the Tahorakuri Scheme, had been approved by the Department of Maori Affairs in the 1930s but delayed by the Second World War. When it was appreciated that there was a potential geothermal field the Tahorakuri land development scheme was dropped. Ironically, the land development scheme at Mokai, now known as Tuaropaki Station, which had lower priority than the Tahorakuri scheme, did go ahead in the 1960s because the geothermal resource potential there was not then realised. Taupo County Council wanted its rates and moved to have the Tahorakuri blocks vested in the Maori Trustee and leased. This was done by the Maori Land Court and the geothermal areas at Ohaaki were leased by the Maori Trustee to the Ministry of Works. The owners lost effective control of their land. The Maori community at Te Ohaaki Marae of about 30 households in the 1930s were reduced to one by 1970. Some moved to other marae at Te Toke and Reporoa, the rest to urban areas.

In the early planning of a power station at Ohaaki it had been assumed that the Crown would obtain ownership of the land whether by purchase or by taking under the Public Works Act. In 1978 the Ministry of Works applied to the Maori Land Court to purchase the land. At the meeting of Maori owners called by the Court to consider this application there was a resolute and unanimous refusal to sell. In 1975 there had been the Maori Land March. In 1977 there had been Bastion Point and the Raglan Golf Course issue was still simmering. In this political climate it was not expedient to use the Public Works Act to take the land. At the same time, a Ministerial Requirement to designate the land was served on Taupo County Council under the Town and Country Planning Act. The Maori owners objected and made their feelings known about the land and its geothermal resources. Trustees were appointed by the Maori Land Court in 1980 under section 438 of the Maori Affairs Act 1953, with powers to negotiate on geothermal matters, and were given the name of Ngati Tahu Tribal Trust.

It was argued by the Crown that the Ohaaki Power Project was a public work in the national interest, and the Public Works Act could have been used. Although the

'Maori owners' were regularly blamed in the media and elsewhere for delaying things, by March 1981 agreement on land for a new road and bridge was signed by the Ngati Tahu trustees. 'Delays' in reaching agreement over the rest of the land were partly related to Government reluctance to give up the idea of purchase. The trustees were not given power to sell in the Trust Order issued by the Maori Land Court. Government did not want to be seen using the Public Works Act to take nearly 400 hectares of Maori land and finally agreed to a lease. In July 1982 a Memorandum of Heads of Agreement for a lease was signed by the trustees, an agreement which allowed the peaceful co-existence of Maori uses with geothermal energy development. Water rights issued by the Waikato Valley Authority required reinjection of geothermal effluents and stringent conditions for monitoring of subsidence and discharge of wastes and were not contested by the trustees. In October 1982, Government approved construction of the Ohaaki Geothermal Power Project.

The translation of Electricity Division to Electricorp was not difficult in that the trustees were still mostly dealing with the same people on the site. The Ohaaki agreement was between the Ngati Tahu Tribal Trust and the Crown. A rumour that the project might be sold was scotched with the knowledge that the leasehold could not be sold by the Crown without the consent of Maori land owners, and an assurance from Electricorp that there was no intention of selling it anyway. The assets to be transferred did not include the land and negotiations quietly proceeded toward finalising an appropriate form of agreement whereby Electricorp could operate the station without upsetting the agreement between the Crown and Ngati Tahu Tribal Trust.

Mokai: competition within the Ministry of Energy.

In 1976 electrical resistivity surveys carried out by DSIR geophysicists at Wairakei revealed a potential geothermal field at Mokai on Maori land now farmed by the Tuaropaki Trust. By 1984 six test wells had been drilled. One of these, MK5, indicated a potential of 25 MW of electrical energy. Economic studies and further engineering and scientific work indicated that a staged development in small generating units of 25 to 50 MW was feasible (Southon *et al*. 1984*)*. This policy was a change from the Wairakei and Ohaaki projects where much longer development periods for proving of the geothermal fields were undertaken before decisions to establish large power stations were made.

In 1985 the Electricity Division, Ministry of Energy, in consultation with Ministry of Works Geothermal Projects, embarked on planning for the staged development of Mokai. A meeting had been held at Mokai Marae between the Tuaropaki Trustees and officials from Electricity Division, Gas and Geothermal Trading Group and Ministry of Works in 1985. In April 1986 a combined deputation of officials talked to Taupo County Council about their proposals, and announced that a first stage 25 MW generating unit could be commissioned in 1989 (*New Zealand Herald* 24 April 1986). Taupo County Council support for geothermal development had been demonstrated in their response to the MWD report on small geothermal development (Southon *et al.* 1984). The county planner, Peter Crawford, was reported as commenting:

> "The question now is what is the hold up?" The council had been trying for six years to get geothermal energy available for industry and for the public. "We have had enough promises. Where is the action?" asked Mr Crawford. "The resource is there" (*New Zealand Herald* 24 April 1984).

The stage seemed set early in 1986 to proceed quietly with design work and environmental impact studies for another geothermal power project. The Tuaropaki Trust, with their kin and tribal connections with Ngati Tahu at Ohaaki, were not opposed to development. Some important precedents had been set in the Ohaaki agreement which would form a basis for discussion of tenure of land at Mokai.

Meanwhile, back in Wellington, the Ministry of Energy was taking a new commercial approach to its operation. On 1 April 1986 the Secretary had directed the three trading divisions – Electricity, State Coal and the Gas and Geothermal Trading Group (formerly Oil and Gas Division) – to act as separate commercial organisations. The Mokai development became the target for commercial competition. The options were for Electricity to develop the steam field and power station, or do so in association with the GGTG, or some alternative joint venture arrangement of GGTG and private interests. The issue became public in June when two sets of applications for water rights for a geothermal power station at Mokai had been prepared. The Electricity Division expected to be the sole customer for the steam to be used in its power station. GGTG had settled for a joint venture option and formed a consortium with Geothermal Energy (NZ) Ltd., of which major shareholders were Ceramco and McConnell Dowell, and Union Oil of California. Back on the farm, members of the Tuaropaki Trust and their beneficiaries who owned the land read about it all in the newspapers (*Waikato Times* 6, 25 and 27 June 1986; *New Zealand Herald* 25 and 26 June 1986).

A public 'debate' began with comments from the Secretary of Energy, Dr Basil Walker, that:

> the two competing applications reflected a Government feeling that allowing that sort of competition to develop would produce a better overall result. "It was always realised that this kind of situation would arise", he said, "the position I am taking is that it would be improper for the ministry to sort it out."
>
> "My own concern as permanent head is to ensure that there is a proper commercial relationship between the divisions; so long as that is the case I do not really feel I have a brief to interfere" (*New Zealand Herald* 25 June 1986).

Dr Walker did note that a Government decision would have to be made on the issues of adequacy of existing procedures for approving geothermal developments and how as sole owner of the resource it wanted to manage it.

The Minister of Energy, Hon. R.J. Tizard, noted that neither applicant for water rights had prepared an environmental impact report:

> "There was an element of pre-empting" he said. He has told both divisions to "try to talk it through for a while," and to prepare either a joint environmental

> impact report, or separate reports, on their competing schemes. If the two divisions failed to sort out the problem between themselves, Mr Tizard agreed that the issue would come back to him and the Minister of Finance, Mr Douglas (*New Zealand Herald* 26 June 1986).

The Opposition spokesman on energy, Mr Tony Friedlander, described the situation as 'a bizarre row' and commented:

> "The public squabble between the electricity division and the gas and geothermal trading group over who is going to develop the Mokai steam field would be comical if it wasn't costing large sums of taxpayers' money," Mr Friedlander said, "You would never see the Board of Fletcher Challenge or any other company allow divisions within their own organization get into such a public muddle. The McConnell Dowell, Ceramco, Union Oil, of California proposal should be welcomed." Mr Friedlander said (*Waikato Times* 27 June 1986).

The joint venture group cancelled the media launching of their consortium proposed for 26 June:

> Joint venture spokesperson, John Potter, managing director of McConnell Dowell Resources, said the Government should decide which group should develop the field before any water right applications were made.
>
> Since both applications were for the same use of steam and for the same customer, Electricity Division, the joint venture needs to clarify the relationships between the parties before it can justify proceeding further…
>
> Electricity Division chief development engineer, Stan Wong, said if the division developed both the steamfield and the power station it would "make a better package".
>
> "We have to behave commercially and look after our own interests and go by whichever route will bring power to the consumer in the cheapest manner" (*Waikato Times* 25 June 1986).

In its lead editorial the *New Zealand Herald* (26 June 1986) commented:

> The country is gaining an early demonstration of the benefits and uncertainties of the state enterprise remodelled on commercial lines. The contest between two divisions of the Ministry of Energy for the right to develop the Mokai Geothermal Field would have been unimaginable until quite recently.
>
> If any such rivalry arose in the past it was resolved behind closed doors in a process described to the public as "discussions and consultations between the various divisions." The familiar phrase covered the gamut of bureaucratic discord, much of it more concerned with empire-building than with the most efficient use of national resources …

> The novelty of open competition between state services would be a great deal more welcome, however, if electricity consumers had some agency to evaluate the rival bids. The Ministry of Energy seems not yet to credit itself with the necessary authority, and perhaps expertise, to assess competing proposals from its trading subsidiaries …
>
> Sadly, Mr Tizard's initial response is to ask the rival divisions of his ministry to reach an agreement. That is redolent of yesteryear. If the Treasury ministers want to preserve commercial discipline in the state sector, they may have to design some mechanism to ensure the most competitive bid wins (*New Zealand Herald* 26 June 1986).

The idea of 'inviting developers to bid for the use of geothermal steamfields' was suggested as 'a way out of the stalemate at Mokai':

> Energy Ministry petroleum and geothermal assistant director, Mike Strachan, said the Government was certainly looking at charging royalties for geothermal resources. One of the options available was royalty bidding, he said.
>
> That would be in keeping with the Government's new approach of letting market forces rule…
>
> Failing any other method of allocating the geothermal resource, the Waikato Valley Authority could be put in the tricky position of having to pick a winner through the water rights process …
>
> The new head of the fledgling Ministry for the Environment, Roger Blakeley, expressed support for the idea of inviting tenders for geothermal resources, letting the market set the price (*Waikato Times* 4 August 1986).

Nothing much happened on the issue of inviting tenders. The Gas and Geothermal Trading Group and the Electricity Division (translated into Electricorp on 1 April 1987) proceeded with preparation of separate environmental impact assessment reports. This meant that local people at Mokai had to cope with two lots of investigations and found it difficult to know who was working for whom. While there had been informal contacts among scientists and engineers, on the management side the parties remained aloof. Both environmental impact reports (prepared by consultants and paid for by the taxpayer) were due in 1987 and were expected to be audited by the Parliamentary Commissioner for the Environment. The Tuaropaki Trustees were assured by the Minister of Energy that the Government wished to develop the field, but no decision had yet been made in 1987 regarding the nature of development. However, neither project proceeded.

Rotokawa: competition for geothermal water rights

Competition for the development of the Rotokawa Geothermal Field was formalised in the separate applications to the Waikato Valley Authority for geothermal water rights by Balcairn Mining and Investments Ltd., a wholly-owned subsidiary of Fletcher Challenge Ltd, and Geothermal Development and Investments (Rotokawa)

Ltd., a nominee company of the Gas and Geothermal Trading Group of the Ministry of Energy. The hearing of these applications in March 1987 was the first under the geothermal policy framework announced by the Ministry of Energy in 1986 and the first time the Waikato Valley Authority had to cope with competing applications for the same resource. No geothermal water management plan for Rotokawa had been prepared under the new policy.

The Rotokawa field lies within Ngati Tahu tribal lands. A substantial proportion of the field is in Maori ownership, Tauhara North 2 block, administered by the Ngati Tahu Tribal Trust who also administered the Maori lands in the Ohaaki Geothermal Power Project. Two wells, RK1 and RK2, were drilled 1965-66 as a possible backup for Wairakei Power Station. A third well was drilled in the mid 1970s. Since 1984 several more wells had been drilled, including a particularly hot one, RK5, located on the Maori land.

Part of the Rotokawa field was also subject to a mining licence held by various mining companies since the 1960s, but in 1987 held by Fletcher Challenge. Previous attempts to mine the deep sulphur deposits under the lake had failed, but a small scale operation extracting surface deposits for use as farm fertiliser had been carried on for some years. The result of this activity has been the destruction of surface geothermal features and little effort to rehabilitate the land. There is also a long history of other Ngati Tahu grievances over the circumstances of Crown purchase of adjoining lands and stewardship of the Maori block in the Department of Lands and Survey development scheme (see Stokes 1994). In another attempt to mine sulphur in the mid 1970s, Fletcher Holdings constructed a pipeline and pump house on the Maori block, without legal authority, fixtures which reverted to the owners of the land on the expiration of water rights in 1982. Subsequently, an injunction was granted to the Ngati Tahu Tribal Trust by the Maori Land Court restraining Fletcher Challenge from entering upon the land until some of these matters could be resolved.

Nothing had been resolved in 1987. In mid 1986 the Ngati Tahu trustees found themselves in the middle of two competing applications for geothermal water rights. Both parties (as well as the Ministry of Works) have tried to acquire leasehold agreements with the trustees. Both have claimed that their respective developments would not intrude on the other. Both would like complete control of the field which has a potential of 200-400 MW. The highest downhole temperature measured in New Zealand (335^{o}C at 2450 metres) was in RK5 (WVA 1987 p.6). This well is located on the Maori Land. For the Maori owners these geothermal wells could be likened to a Trojan horse: beware of Greeks bearing gifts!

Although the Ngati Tahu trustees had heard rumours of both GGTG and FCL proposals early in 1986, no formal approaches had been made. But they were able to read about it all in the newspapers in July:

> One of the new commercially oriented Government trading agencies is taking on New Zealand's second largest listed company in another wrangle over use of central North Island geothermal energy.

> The wrangle is over the use of heat from the Rotokawa geothermal field … where Fletcher Challenge is eyeing a $1 billion sulphur deposit – the largest in New Zealand or Australia.
>
> The company wants heat both to generate electricity for a difficult mining operation and to process the 2.7 million tons it estimates to be under the bed of Lake Rotokawa …
>
> And the Gas and Geothermal Trading Group of the Ministry of Energy has its own plans for the Rotokawa field, under the new commercial dictates of the Government, and has objected to the water rights [application] to protect these… Its assistant general manager for projects, Mr Tom Young, said last night that it had already spent about $8 million investigating the Rotokawa field, and now wanted some of that money back from a trial power plant producing about 6.5 megawatts of electricity.
>
> The Fletcher Challenge project would upset that plan, he said, although his group was willing to consider entering a joint venture to supply the company with heat and electricity.
>
> The group had already held preliminary discussions with Fletcher Challenge and had been surprised when the company went ahead and applied for water rights …
>
> But the general manager for new business with Fletcher Challenge, Mr Lyndon Ferry, said the company had already approached the group for use of geothermal fluids from five bores the group had drilled and had been rebuffed.
>
> Its applications to the [Waikato] Valley Authority were only for the renewal of water rights it had already held during long mining trials conducted at Lake Rotokawa since the late 1970s at a cost of about $10 million. Mr Ferry said the Gas and Geothermal Trading Group was no longer in a privileged position as part of the Crown, and therefore had to gain normal statutory consents, like everyone else. "If they do not want to sell or lease their bores, we will drill our own."
>
> Ironically, Fletcher Challenge is already in partnership with the trading group in planning construction of a 25 megawatt electricity plant in the Tauhara geothermal field closer to Lake Taupo (*New Zealand Herald* 9 July 1986).

In September the Gas and Geothermal Trading Group lodged applications for geothermal water rights at Rotokawa and met the Ngati Tahu Tribal Trust for the first time. The argument continued in the media:

> Gas and Geothermal environmental and planning officer, Dave Paul, said in order to do an adequate test programme the group needed to be in full control of the steam draw-off from the field – the Balcairn mining proposal did not allow this.

> But he said the trading group was still willing to discuss providing steam and power for Balcairn's sulphur mining on a contract basis.
>
> But a Fletcher Challenge spokesperson said the company would not consider buying steam or power off the trading group.
>
> "It's an enormous steamfield. I don't see why their application should jeopardise Fletcher Challenge's application for water rights.":
>
> The spokesperson said the Rotokawa field had a potential for 400 megawatts of generation – Balcairn was wanting only 17 megawatts of it and the trading group only 6.5 megawatts (*Waikato Times* 25 September 1986).

In March 1987 both sets of applications for water rights were heard by the Waikato Valley Authority. Each applicant objected to the other and the Ngati Tahu Tribal Trust objected to both. Some water rights were granted to both applicants and appeals were lodged with the Planning Tribunal. However, neither project proceeded after all that.

Energy Policy and Development Issues

The rules for the geothermal power game had changed. Ohaaki was a public work in the national interest, built to supply power for the national grid. The proposed Mokai power station was caught in the transition. At Rotokawa the aspirations of the developers were entirely commercial. In this shift to a market-oriented policy environment it appeared to Maori owners that not only had government changed the rules, but had changed the game as well. The Tuaropaki Trustees complained, 'We are the last to know what is going on.' Among Ngati Tahu, it is often said that if the geothermal gifts of Ngatoroirangi are not treated with respect, he has a way of answering back. Hydrothermal eruptions do occur now and again. The behaviour of geothermal areas is sometimes difficult to explain or predict. Local people regard themselves as kaitiaki, guardians, of this traditional resource, and any unusual activity is interpreted as a friendly warning from Ngatoroirangi. Late in May 1987, following a small earthquake in the Reporoa area, the geyser in the Ohaaki Pool began erupting for the first time since drilling of wells nearby affected surface activity in the 1960s.

In s.3 of the Geothermal Energy Act 1953 'The sole right to tap, take, use, and apply geothermal energy on or under the land shall rest in the Crown, whether the land has been alienated from the Crown or not". The Crown thus pre-empted ownership of this resource without reference to Maori people. Among Te Arawa, Ngati Tahu and Ngati Tuwharetoa tribes, the areas of surface geothermal activity were and still are regarded as traditional resources, taonga, a highly-prized inheritance, as defined in Article the Second of the Treaty of Waitangi. Alex Wilson, deputy chairman of Te Arawa Maori Trust Board, in advocating a strong role for the Board in allocation of geothermal energy in Rotorua, commented: "We do not believe that we Maoris here in Rotorua have given away the geothermal field" (*New Zealand Herald* 9 May 1986).

The Waikato Valley Authority in its 'Overview' of geothermal management planning described its approach to geothermal development as 'to consider geothermal use another component of water and soil resources' (Waikato Valley Authority 1987).

The Chief Executive of WVA, Hunter Young, was quoted as saying, 'geothermal fluid is just hot water with a few goolies in it' (*Waikato Times* 14 July 1986). From any Maori viewpoint this is a very limited interpretation of the geothermal resource but one that is understandable in terms of the constraints of the Water and Soil Conservation Act which made no provision for consideration of Maori issues. There was some consolation in s.9 of the State-Owned Enterprises Act 1986 which does not 'permit the Crown to act in a manner that is inconsistent with the principles of the Treaty of Waitangi.' But neither the Gas and Geothermal Trading Group nor its nominee companies were state-owned enterprises as defined in this Act. Nor was Fletcher Challenge. An applicant for a geothermal licence was not required to take any notice of Maori concerns under the Geothermal Energy Act.

Among Te Arawa, Ngati Tahu and Ngati Tuwharetoa people, there has been an attitude that the geothermal resource can be shared with others. There was a feeling in the mid 1980s that Pakeha exploitation had taken over. A good deal of destruction of geothermal areas has already occurred (see Houghton, Lloyd and Keam 1980). The closure of bores in Rotorua was a belated recognition of the dangers of a laissez-faire policy in management of geothermal resources. It has been argued that Maori use was confined to surface phenomena and Maori values should not affect geothermal exploration. Deep wells do affect surface activity as evidenced by the situation in Rotorua and the documented changes at Wairakei. The loss of water levels and geyser in the Ngawha Reserve at Ohaaki was one of the sticking points in negotiations with the Ngati Tahu trustees and resolved by a guarantee in the Memorandum of Heads of Agreement to restore the Ohaaki Pool.

In all of this rush to commercial behaviour in the development of geothermal energy there was only one consolation for Maori owners of land in geothermal fields. Neither a water right nor a geothermal licence could be used without the consent of the owners of the land. Perhaps this was the only lever to ensure that Maori concerns could be taken into account. This new, market-oriented, policy environment could have also been a recipe for increased pressure to exploit. A coalition of Government agencies and private developers may just mean that the big guns, only more of them, are still on the other side, putting pressure on Maori owners. There are other issues too. Who is responsible for comprehensive energy planning, now that the government 'machinery' has been 'finally dismantled' (Ministry of Energy 1986 p.79). How are Maori owners to assess the relative merits of a proposal when much of the technical information is now regarded as commercially sensitive. The Minister of Energy in 1987 refused an application from Fletcher Challenge, made via the Ombudsman, for information about geothermal wells at Rotokawa.

In 1987 I questioned what rights were left to Maori owners to develop their own lands? In other words how do the trustees for such geothermal lands retain control? Was it to be assumed that Maori owners also become commercial and put up their lands for tender and accept the highest or most acceptable bidder? The holders of water rights will insist on their prior claims. The Maori owners cannot apply for water rights, or a geothermal licence, unless there is a specific end use proposed. Maori owners appeared to have been systematically barred from the development process in geothermal fields. The new market-oriented policy environment opened up a situation where a number of developers were competing for access to Maori lands. Was this situation any different from the competition to open up Maori lands in the

nineteenth century? One of the appropriate behavioural responses could be an effort to work out a joint venture arrangement, whereby the Maori owners are regarded as equal partners in development because of their land assets and traditional associations with geothermal areas – and benefit accordingly. In 1987 this scenario had not yet evolved out of the new policy environment. In the 1990s both the Tuaropaki trustees at Mokai and the Ngati Tahu trustees of Tauhara North 2 block at Rotokawa did enter into joint venture arrangements to construct geothermal power stations on Maori land which are both now actively contributing electricity to the national grid.

13. The Resource Management Act 1991

During the late 1980s various working groups were set up to review how environmental issues were being dealt with, both administratively and in legislation. By 1987 the Department of Lands and Survey and New Zealand Forest Service had been restructured and the Department of Conservation and the Ministry for the Environment established. The state-owned enterprises Landcorp and Forestcorp were also established and the residual functions of Lands and Survey remodeled as the Department of Survey and Land Information, later restructured again to become Land Information New Zealand. In 1987 the Ngati Tahu Tribal Trust lodged a claim with the Waitangi Tribunal concerning the 'ownership', management and development of geothermal resources within their rohe. Similar claims were lodged by Maori in Ngawha, near Kaikohe, and members of Te Arawa tribes of the Rotorua district, and by Ngati Tuwharetoa of the Taupo region. The management of geothermal resources was one of many issues under discussion in the consolidation of legislation which appeared as the Resource Management Bill in 1990 (see Bennion 1991 and Boast 1989 and 1991). In 1988 I had also visited the Geysers Geothermal Field in California while on study leave in U.S.A. and talked with people in the Public Utilities Commission in San Francisco about the problems in managing this field.

In July 1990 Manatu Maori, the Ministry of Maori Development (the Department of Maori Affairs had also been restructured) began a consultation process with Maori groups who had interests in geothermal resources. A number of hui were arranged in late 1990. The Tuwharetoa Maori Trust Board hosted the hui for the Taupo region at the Trust Board meeting room in Turangi. The meeting was chaired by Sir Hepi Te Heuheu, and various Tuwharetoa Trust Board members, Tuaropaki Trust (Mokai) and Ngati Tahu Tribal Trust made oral submissions to the officials from Manatu Maori. I had already sent in a written submission agreed by Ngati Tahu trustees in September. When all the men had spoken Sir Hepi signaled to me to say something too. This was unexpected, but I was able to speak to the written submission and endorse the comments of kaumatua who had already spoken. I reproduce this submission below as it provides a review of all the issues relating to geothermal resource management as we perceived them.

1 Taonga – Te Ohaaki o Ngatoroirangi

Geothermal resources are regarded by Ngati Tahu and other tribes of the Rotorua Taupo district as taonga, inherited, highly-prized resources. The ancestor responsible for this resource was Ngatoroirangi, the tohunga of the canoe Te Arawa, which landed at Maketu in the Bay of Plenty. In a journey searching out the new land Ngatoroirangi and his slave Ngauruhoe climbed the mountain Tongariro. They were near freezing to death when Ngatoroirangi called on his sisters in Hawaiki to bring them warmth. The record of their journey is seen in the geothermal features of the region. While there are local variations in detail in this tradition, the common and unifying theme is that their route, from Whakaari (White Island) through the Kawerau, Rotorua and Taupo districts to Tongariro, links together all the places on the Taupo Volcanic Zone where geothermal features occur. The name of the principal marae of Ngati Tahu is Te Ohaaki o Ngatoroirangi, the gift or legacy of Ngatoroirangi. In recognition of their ancestral legacy, Ngati Tahu asked that Ohaaki be the name of the geothermal power station constructed on their lands. Among Ngati

Tahu geothermal resources are clearly understood to be taonga as described in Article Two of the Treaty of Waitangi.

2 Traditional Use of Geothermal Resources

The definition of geothermal resources in Maori terms includes the land, papakainga, mahinga kai, puia, waiariki, ngawha, mineral resources such as kokowai and sulphur, and minerals in geothermal fluids, and the taha wairua [spiritual dimension] and wahi tapu. Geothermal areas were highly favoured as places to live throughout the Rotorua-Taupo district because of the variety of uses: cooking in hot springs and heated ground, bathing pools, the therapeutic qualities of geothermal water and earths, dyestuffs and paints from hydrothermally altered ground, burial places and other sacred sites. There was considerable mana associated with tribes whose lands included geothermal resources.

3 Kaitiakitanga

Because geothermal resources are an ancestral inheritance, there is also an obligation that such resources are passed on to the next generation. Maori claim ownership of geothermal resources but the Maori conception of ownership does not imply that a resource is a disposable commodity. The term kaitiakitanga, guardianship or trusteeship, is often used. Maori stood in a fiduciary capacity to rights of control and use of resources. This is a more onerous burden than ownership in fee simple because of the obligation to manage resources for the benefit of future generations. In the late 1970s Ngati Tahu established a kaupapa in respect of Ohaaki Geothermal Power Project: Kia mau ki te whenua, whakamahia te whenua. Interpreted broadly this meant, hold onto the land (and thereby maintain the mana of Ngati Tahu) but allow the land to be used for the benefit of all. Crown officials impressed upon members of the Ngati Tahu Tribal Trust (appointed by the Maori Land Court to negotiate Crown access to Maori lands in the geothermal field) that the Project was in the national interest, that if negotiations failed then the land would be taken under the Public Works Act in the national interest. We were also told that the Crown owned the resource and therefore our land was valued as undeveloped rural land. This reinforced our concern about the failure of the Crown to acknowledge Maori attitudes and values in the management of geothermal resources, a highly valued taonga.

4 The Crown Claim to Geothermal Resources

The long title of the Geothermal Energy Act 1953 is: 'An Act to make provision for the control of the tapping and use of geothermal energy and for vesting all such energy in the Crown'. The Crown rights are set out in Section 3:

> Sole right to tap and use geothermal energy to vest in the Crown –
>
> (1) Notwithstanding anything to the contrary in any Act, or in any Crown grant or certificate of title or lease or other investment of title in respect of any land within the territorial limits of New Zealand, the sole right to tap, take, use, and apply geothermal energy on or under the land shall vest in the Crown, whether the land has been alienated from the Crown or not.

(2) All alienation of land from the Crown made after the commencement of this Act, whether by way of sale or lease or otherwise, shall be deemed to be made subject to the reservation of the sole right of the Crown to tap, take, use, and apply geothermal energy on or under the land, and subject to the provisions of this Act.

This appears to vest all rights in the Crown and replaced a similar unequivocal statement in Section 3 of the Geothermal Steam Act 1950: 'Subject to the provisions of this Act, the sole right to take, use, and apply geothermal steam for the purpose of generating electricity shall vest in the Crown'. From a Maori viewpoint the Crown appears to have appropriated a valuable taonga without consent or compensation to tangata whenua.

5 Change of Definition in Resource Management Bill

The definition of geothermal energy in the Geothermal Energy Act is:

> Energy derived or derivable from and produced within the earth by natural heat phenomenon; and includes all steam, water, and water vapour and every mixture of all or any of them that has been heated such energy and every kind of matter derived from a bore.

In the Resource Management Bill this definition is reduced to:

> water in all its physical forms whether flowing or not and whether over or under the ground and includes fresh water coastal water and geothermal water.

Geothermal water is defined as:

> water heated within the earth by natural phenomena to a temperature of 30 degrees Celsius or more; and includes all steam, water and water vapour, and every mixture of all or any of them that has been heated by natural phenomena

This definition is inadequate in Maori terms. It denies the existence of other attributes of geothermal resources including land features and minerals. It denies the concept of taonga. It denies a holistic approach to management of geothermal areas in which Maori see land and water as part of the same resource. It also contradicts Section 5(f) of the Resource Management Bill, 'The relationship of Maori and their culture and traditions with their ancestral lands, water, sites and other taonga'

There is an apparent acknowledgement of Maori concerns in Section 11(3):

> A person is not prohibited from taking or using water heat or energy if….
> (d) In the case of geothermal water, the water, heat or energy is taken or used in accordance with tikanga Maori

This provision is so vague it may be unworkable. It does not include the concept of taonga explicitly, or acknowledge benefit to Maori by including use of modern technology. It could be a denial of Maori development rights by restricting interpretation to uses as of 1840.

Our overriding concern is that the shift in definition of geothermal resources to geothermal water is an imposition of a British common law right on a resource that was not included in British common law. Management of geothermal resources is significantly different from management of fresh water resources and requires separate legal definition which acknowledges the nature of a geothermal reservoir and the need for management of this resource as a unit. This concept is provided for in Section 252 of the Resource Management Bill in respect of petroleum but is conspicuously absent from geothermal provisions in the Bill.

In the past the Crown has claimed all geothermal rights on lands and Maori have been denied development rights. There are many grievances derived from the nature of Crown and private acquisition of our lands which we consider breaches of the Treaty of Waitangi. Be redefining geothermal water as a common law right, the Crown will add insult to injury by giving away our taonga to others. The geothermal policy framework which evolved in the mid 1980s was worked out by an officials' committee in Wellington which had no Maori representation. Our submissions were given scant attention in a policy which was based on the Water and Soil Conservation Act which has no real provision for Maori concerns. Once again, it seems to us, the Resource Management Bill is eroding further our mana as kaitiaki, guardians of our geothermal taonga, and thereby prejudicing our interests. These issues are complex and claims have been lodged with the Waitangi Tribunal. The Crown should not foreclose on our options to resolve these longstanding grievances.

6 Multiple Users on a Geothermal Field

Conflicts have already occurred on our geothermal fields between competitors for access to geothermal resources. The behaviour of a geothermal reservoir bears no relation to property boundaries or other demarcation on the land surface. The concept of a separation zone between two developers already decided by the Waikato Catchment Board on the Rotokawa field, along a boundary between an area of Crown land and Maori land, cuts across a fault system which is potentially a production area. We consider that our interests have been prejudiced by this decision of the Waikato Catchment Board. The recently published report of the Review Committee on Earth Science, Energy and Mineral Resources (Wellington, DSIR 1990) notes the 'serious difficulties' in managing a geothermal field created by separate local authority jurisdictions, and where two or more developers are allowed to operate on the same field:

> An example of the difficulties which can arise is given by the situation in the Geysers Geothermal Field in California. This field spans a number of counties each of which manages that part of the field in its jurisdiction. There are also a number of developers who have drilled for, and are supplying, geothermal energy to different power companies.
>
> The lack of coordinated management led to a significant decline in power production due to over exploitation of the resource. As a result the California Energy Commission recently held an inquiry to assess the implications of the problem for California's electricity supply forecast, the future planning for geothermal energy and general energy policy. The results of the inquiry are not yet available however.

> New Zealand's fields are much smaller than the Geysers field. It is of great concern that such a situation does not develop here.

We are concerned about the serious implication of a management regime which does not provide for coordination of users and sharing of information to promote most efficient use of the resource. If there is a free market, competitive approach to exploitation, the concept of sustainability of the resource is irrelevant. The long-term run down of a geothermal field must be likened to mining the resource. For example, in response to questions at a recent water rights hearing, one scientist estimated that if Wairakei Power Station closed it would be at least 200 years before the field was restored to the conditions pertaining in 1958. Even this must be qualified as changes resulting from extraction of fluid, such as subsidence and cold water encroachment and quenching of part of the bore field, may be irreversible. Ngati Tahu have always taken a long-term view, as custodians of the resource, and wish to see the benefits of the resource preserved for succeeding generations, not squandered for short-term gain. Until the issues of Maori claims to geothermal resources are resolved we ask that no further geothermal or mining licences be issued on geothermal fields.

7 Scientific and Technical Expertise

New Zealand has an enviable reputation for its scientific and technical expertise in the geothermal field, particularly in the DSIR, the Works geothermal drilling group and Electricorp engineers at Wairakei, the Geothermal Institute at Auckland University and several private consultants. For some years now the Ngati Tahu Tribal Trust has worked to bring together geothermal scientists and engineers with local people. Ngati Tahu wish to participate in development of geothermal resources, but acknowledge the need for scientific and technical expertise. It is of some concern that a number of geothermal engineers and scientists have moved out into other fields. It is in the national interest that we retain this pool of expertise, that a productive partnership be developed. We, the Ngati Tahu trustees, have been accused of holding up development. We are not opposed to development. We are not prepared to allow others to develop our resources without positive benefits accruing to our people. There is a great deal of good will at a local level between Maori and the geothermal industry. Many of our people have worked on drilling rigs and on power projects. We have lodged claims with the Waitangi Tribunal and made submissions to the Government asking for acknowledgement of Maori attitudes and rights to participate in development on our own lands. We would like to work in partnership in development of our taonga but on terms where Maori spiritual values as well as practical economic benefits to the tribe are acknowledged and achieved.

8 Kawanatanga and Rangatiratanga

We acknowledge the Government's right and obligation to make laws. We also respectfully remind Government that in Article Two of the Treaty of Waitangi the Crown promised protection of tino rangatiratanga over lands and resources. In respect of geothermal resources the Crown has appropriated control of the resource and denied Maori participation in development, and worse, energy development has been a cause of dispossession of lands and loss of mana for Ngati Tahu. We consider that the Crown has a continuing obligation to maintain geothermal wells in a safe condition and to encourage and assist Maori in the development of geothermal

resources on their lands. The Crown also has an obligation not only actively to protect tino rangatiratanga but also to provide redress. We see geothermal resources as part of an economic base for the tribe in future. Some areas we want to preserve, some areas can be made available for development. These are issues which need to be followed through by negotiation in detail, field by field.

In the interests of effective co-ordinated management of our geothermal resources which we consider are not only tribal taonga but are of national and international scientific significance, we make the following proposals:

(a) That Government establish a Geothermal Commission, the membership to comprise a balance of representation of Maori interests, scientific and technical expertise.
(b) The principal task of the Geothermal Commission would be to provide a co-ordinating role in the management of geothermal resources in the national interest, to maintain a balance between interests of exploitation and conservation, and ensure sustainability of the resource for the use of future generations.
(c) The geothermal assets of the Gas and Geothermal Trading Group in the form of wells and equipment and information about geothermal resources, should be transferred to the Commission.
(d) The Geothermal Commission will be responsible for allocating use of the resource where appropriate, including charging fees and/or resource rentals. The regional councils would retain responsibility for issuing water rights under the Water and Soil Conservation Act (or water permit as proposed in the Resource Management Bill) once a specific proposal for use of the resource is determined at a particular site.
(e) In allocating use rights, the behaviour of the whole reservoir and impact on other users must be taken into account. All information gained by a developer, or required to be researched or monitored as part of the conditions of use, will be submitted to the Commission. It is essential that all relevant information be lodged, regardless of alleged 'commercial sensitivity', in order that a geothermal reservoir be managed as a unit, whatever the ownership or location of property boundaries on the land surface.

The following specific tasks should be undertaken by the Geothermal Commission:

(a) Determine the identity of tangata whenua in each geothermal field who are the kaitiaki and set up local Maori advisory committees to provide liaison between the Commission and tangata whenua.
(b) Determine the existing land use and ownership patterns of the surface of known geothermal fields and develop appropriate management strategies for each, including liaison with surface land owners.
(c) Bring up to date and maintain scientific data bases on all geothermal fields, including surface features, geological and biological data, and energy potential and behaviour of geothermal reservoirs.
(d) Ascertain research needs in geothermal areas, including basic research which may not be of immediate practical use for energy development, but which is necessary for understanding of, and management of the resource.

(e) Provide guidelines and regulations as appropriate for geothermal exploration and controls on drilling, maintenance and monitoring of geothermal wells.
(f) Draw up a national management plan for geothermal resources which provides a balance between Maori, conservation, scientific, tourism and energy issues. This may be done in association with relevant regional councils and public submissions would be invited.
(g) Advise regional councils on any matters relevant to management of geothermal fields, and provide independent expert assessment of water right applications which involve geothermal resources.
(h) Call for development proposals and allocate development rights in fields which have potential for use for energy or other purposes, in association with the tangata whenua of the fields concerned.
(i) Provide information and advice to central and local government, to developers and the general public on any matters related to the management of geothermal fields, preservation, restoration and rehabilitation of surface features, and efficient use of geothermal energy in ways which ensure the sustainability of the resource for succeeding generations.

Conclusion

We have written many submissions to Government on geothermal issues. The following is an extract from the statement made by Ngati Tahu at the hearings in Taupo in 1979 on the designation of lands at Ohaaki for geothermal power generation.

> We believe that with good will and good communication between government, local authorities and Maori owners, a satisfactory agreement can be negotiated which will preserve Maori interests and allow construction to proceed. If Ngati Tahu are encouraged to participate in development of the geothermal resources under their lands they will be better able to make a positive contribution to the future development of the region. They will have some stake in this development and be less likely to regard this whole geothermal project as something imposed on them from outside, by a remote government in Wellington.

Government has since changed the rules. The issue of public works in the national interest has given way to corporatisation and privatisation. A competitive commercial approach to geothermal resources must be tempered by acknowledgement of Maori concerns for taonga, for sustainability of the resource, for real Maori participation as kaitiaki, guardians and custodians of this taonga, and acceptance of taha wairua, the spiritual dimensions, along with the practical benefits of wise use and management of the resource. We seek now full acknowledgement of Maori rights, tino rangatiratanga, by the Crown and constructive negotiation to reach mutual agreement in the details of implementation. Kia ora.

In February 1991 Manatu Maori produced a 'Discussion Document' which summarised submissions from various Maori groups including the Ngati Tahu Tribal

Trust, Tuaropaki Trust, Rotoaira Forest Trust and Tuwharetoa Maori Trust Board in the Taupo region. There were other submissions from Maori groups at Ngawha, Rotorua, Te Puia Springs and the South Island, as well as other organisations such as DSIR, Electricorp, district and regional councils and a few individuals. Manatu Maori called for further comment by 22 March, which left us little time to get together for further discussion. I was also in the process of resigning from the Ngati Tahu Tribal Trust, having given notice of my intention, although it did not take effect until some time later in 1992 when the Maori Land Court removed my name from the list of trustees. However, I did put together some comments which emphasised the need to define geothermal resource to include the whole reservoir, not just surface features, and including hot water, steam, surrounding land and minerals contained in land and water, and the energy resource. I reiterated the Maori view of geothermal resources as taonga, the Crown obligation to acknowledge this in Article Two of the Treaty of Waitangi, and the need to manage the whole resource in a combination of Maori participation along with scientific knowledge and expertise, a form of partnership with equal access to information. I then elaborated on how I thought a Geothermal Commission could operate as a coordinating body to manage geothermal resources.

A revised Resource Management Bill was produced a few weeks later, and in May 1991 I prepared another submission to the Parliamentary Planning and Development Select Committee:

1. The changed wording of Clause 6B to include the phrase, "the principles of the Treaty of Waitangi" is welcomed.
2. There is no evidence of any cognisance of the Manatu Maori consultation exercise on ownership, management and development of the geothermal resource, in the wording of the revised Resource Management Bill. The failure of the Crown to acknowledge Maori ownership and active participation in management of geothermal resources, a taonga which appears to have been expropriated by the Crown under the Geothermal Energy Act 1953, could be construed as a breach of the principles of the Treaty of Waitangi. In other words, the Crown has an obligation actively to protect Maori interests, the "rangatiratanga principle". A number of claims have been lodged with the Waitangi Tribunal on this issue.
3. Even when an aboriginal title to the resource is acknowledged, the provisions of the Resource Management Bill deny active Maori participation in management. "Ownership" is meaningless without control of management of a resource. The transfer of a management role from the Crown to regional authorities without provision for direct participation by Maori is a further breach of the Treaty guarantees of te tino rangatiratanga. "Consultation" as a means to "take account of the principles of the Treaty of Waitangi" is inadequate in this context.
4. Geothermal resources include components which are water (hot water and steam), energy and minerals. In spite of the addition of a definition of geothermal energy in the Interpretation Clause 2, and provision for control of taking and use of geothermal energy, Clause 27 (1) (e) (iii), there is no provision for managing a whole geothermal reservoir as a unit. Nor is it clear how the concept of sustainability is to be applied to a geothermal reservoir which, when used for energy production, can be likened to a form of mining. There is still no provision for the minerals contained in

geothermal fluids and adjacent lands. Are these Crown-owned minerals or, when extracted in geothermal fluids, a free gift to landowners? The relationship with the proposed Crown Minerals Act will need to be spelled out. How are conflicts between mining and geothermal energy development to be resolved. Likewise, there is a need to spell out issues in relation to information about geothermal resources, who owns it, and who has access to it.

5. The lack of satisfactory provisions in the Resource Management Bill for management of geothermal resources suggests two options for remedy. One is the setting up of a Geothermal Commission by means of an addition to the Resource Management Bill, a proposal also canvassed in the paper produced by Manatu Maori early this year. The alternative is to withdraw the geothermal resources provisions from the Resource Management Bill and consider management of geothermal resources separately or in association with the proposed Crown Minerals Act, and any relevant parallels in provisions for petroleum mining.
6. Geothermal resources are unique and valuable, their management requires specialized scientific and technical expertise, and they are a highly esteemed taonga among all the tribes where geothermal phenomena occur. Geothermal resources require a better framework for management than simply being relegated to the category of hot ground water as proposed in this Resource Management Bill. Earth heat is likely to become an increasingly valued energy source in future. If Maori aspirations for active participation in beneficial use and development of their taonga are to be fulfilled, then a framework for partnership between Crown and Maori needs to be worked out now. The passing of the Resource Management Bill in its present form is a further denial of Maori interests and aspirations, a failure to resolve long-standing claims on the issue of ownership and management and development of geothermal resources.

The Resource Management Act became law on 22 July 1991. There was no significant change in the geothermal provisions, and no Geothermal Commission, as a result of the Select Committee hearings. The geothermal resource was treated as a form of water subject to the general water rights provisions, which treat all water at common law in the form of a series of rights to the use of water. This was a significant shift from the earlier provisions in the Geothermal Energy Act 1953 which were interpreted as meaning that the Crown owned the geothermal resource. In our negotiations over an agreement to lease land for the Ohaaki Geothermal Power project we tried to debate this issue, since it was still Maori land, and it could not be argued that the geothermal resource had been sold along with the title to the land, as had been argued elsewhere. As late as 1986 the Ministry of Energy publication *Energy Issues 1986* had stated 'Licences for use are required under the Geothermal Energy Act since all of the resource is owned by the Crown' (Ministry of Energy 1986, p. 53). Now, by a sidewind it seemed to us, the resource was deemed to be 'owned' by all under Common Law, thus undermining Maori claims to their traditional use and management of the resource and a development right to participate in technological advances to harness geothermal energy for electricity generation or other purposes.

In 1993 the Waitangi Tribunal, in the *Ngawha Geothermal Resource Report*, reviewed the Geothermal Energy Act 1953 and the Resource Management Act 1991 and found

neither the 1953 Act nor s.354 of the 1991 Act 'which preserves existing rights to geothermal resources …… contain adequate provisions to ensure that the Treaty rights of the claimants, in their geothermal resources at Ngawha, are protected'. This Tribunal also found that the 1991 Act 'is inconsistent with the principles of the treaty in that it omits any provision which ensures that persons exercising functions and powers under the Act are required to act in conformity with the Treaty of Waitangi' (Waitangi Tribunal 1993, pp 141 and 147). The Tribunal concluded that the claimants had been prejudiced by the Crown's failure to give priority to protection of geothermal resources, taonga of the local tangata whenua, which prevented them from exercising their rangitiratanga and kaitiakitanga, to manage and control the resource as they wish. A similar conclusion was reached by the Waitangi Tribunal in the *Preliminary Report on the Te Aroha Representative Geothermal Resource Claims*.

The Ngati Tahu claims have not yet been heard by the Waitangi Tribunal. By the late 1990s, both the Tuaropaki Trust at Mokai and Ngati Tahu Trust at Tauhara North 2 block have negotiated joint venture arrangements to build and operate geothermal power stations on their lands. Electricorp has been split up into several groups, one of which was sold to Contact Energy and included Wairakei and Ohaaki Geothermal Power Stations.

The day of the Governor General's visit to Te Ohaaki Marae:
Top, some early arrivals are welcomed by Ngati Tahu;
Middle, the kuia wait in the porch of the meeting house;
Bottom, the Reporoa College kapa haka group ready to welcome Sir Paul Reeves and the official party.

The Governor General arrives at Te Ohaaki Marae:
top left, the wero; *top right,* kai karanga, Bubbles Mihinui, leads the official party on to the marae; *bottom left,* Peter Tapsell speaking on the marae; *bottom right,* Sir Paul Reeves' speech is followed by a waiata.
(Photos: Electricorp)

Welcome to Te Ohaaki Marae for the Govenor General:
Top, Sir Paul Reeves greets Taxi Kapua in the hongi line; *middle left*, presentation of a whariki from Ngati Tahu to Sir Paul; *middle right*, Sir Paul greets the Reporoa College kapahaka group; *bottom,* hakari in the new dining hall.
(Photos: top and middle Electricorp)

The official opening of Ohaaki Power Station: *top*, Bill Hall speaks on behalf of Ngati Tahu, seated left to right, Christine and John Fernyhough, Sir Paul Reeves; *bottom*, Sir Paul Reeves declares the power station open.
(Photos: Electricorp)

14. Retrospect

On 31 October 1989 the Ohaaki Geothermal Power Station was officially opened by the Governor General, Sir Paul Reeves. Earlier in the day the official party, Electricorp Board and other guests had been welcomed to Te Ohaaki Marae where Sir Paul had officially opened the new dining hall, Wairakewa. We hosted all the visitors at a hakari before they moved to the power house for the official opening. We had a week earlier held a dawn ceremony to lift the tapu from both the new wharekai and refurbished wharenui, Tahumatua. All the previous arguments and disagreements were forgotten as Ngati Tahu came together to host all these distinguished visitors, including prominent Maori leaders from the Rotorua and Taupo region. And there was a great deal of back-patting among the Electricorp leaders and politicians that the Ohaaki Power Project had been completed on time, under budget and with an excellent safety record that had won the project an International Safety Award of four stars.

The success of the opening ceremonies was an achievement in itself. As usual, I provided the liaison with Electricorp in Wellington. I must pay tribute to the organising skills of Juliet Hensley at Electricorp, and Paul Canham, Sir Paul's private secretary. I provided some background notes for Sir Paul's speech and for the glossy package given to all visitors, on the day, organised by Juliet. Back at Te Ohaaki Marae, the Marae Committee organised the catering and ensuring everything was tidied up ready for the big day. The kaumatua conferred about the powhiri and the presentation of a whariki, large woven mat, given to Sir Paul Reeves by Ngati Tahu on the day. Entertainment was provided by the Reporoa College kapahaka group. It was a big day out for all.

The official opening was also a time for us to reflect on what the Ngati Tahu Tribal Trust had achieved. We had persuaded Government to change its policy on public works and lease the land rather than take the freehold. We had also been able to work through the numerous issues that arose by locating a power project alongside a marae, papakainga and wahi tapu. We had been the first to participate in planning hearings for a public works project under the Town and Country Planning Act 1977, whereas previously the Crown was not bound by planning restrictions in construction of public works. More significantly for Ngati Tahu, the numerous hui we had to call to discuss the project and related matters provided the opportunity for a scattered community of owners to get back together again, to reinforce their ties with ancestral lands at Ohaaki. I have remarked ruefully that we got them back together just so they could fight. While there were disagreements among individuals and whanau, we were able to persuade them every time we had Crown officials come to talk to us at Te Ohaaki Marae we would present a united front.

We had a similar policy among the six responsible trustees, that our decisions would be unanimous. I also made it clear when negotiating on behalf of the trustees in Wellington that any agreements reached would have to be confirmed by the other trustees. We were a scattered bunch of trustees too, four Ngati Tahu owners who lived in Rotorua, Gisborne, Murupara and Taupo, and two outsiders, Ken Scott, former Chief Judge of the Maori Land Court, who lived in Rotorua, and I lived in Hamilton. We were able to talk things through together in our regular meetings in Rotorua and sort out any disagreements or hesitation about particular actions. I recall

only one major spat. Our Chairman, Henry Bird, reported that he had arranged for a Ringatu tohunga to do the karakia to 'clear the site' before any construction work started in October 1982. Pare Tahau, who belonged to a Pentecostal Christian group, objected strongly to this 'pagan' ritual. I suggested that because there would be a number of Maori workers on the site this would make them feel more comfortable about working there. I knew that a karakia had been arranged, but was not present at the ceremony. By the time the trustees met, it had already been done, and Pare could do nothing about it. It was an interesting clash between two Maori elders, but did not undermine our subsequent discussions. We were well served throughout by our lawyer, Ainsley McLachlan, and accountant, Buddy Nikora. We were also fortunate in having Jack Ridley's advice as an engineer. After he lost his seat in Parliament, he remained our consultant for a nominal fee on all matters on which we needed engineering advice.

The Ngati Tahu Tribal Trust's primary role, alongside negotiating with Crown officials on matters related to the project, was to take the lead in community development. We succeeded in getting people back together, in getting money to refurbish the meeting house and build a new dining hall and ablution block. This required a lot of people to work together, particularly the Marae Committee, and supervision and cooperation in the Labour Department's PEP and Access Work Schemes. Officials from the Department of Maori Affairs also assisted. A marae is not just the buildings, it is the people. The refurbishment of Te Ohaaki Marae was a great boost to Ngati Tahu self esteem. There was also a feeling that now, having taken on the Government and Taupo County, they had achieved some recognition as tangata whenua at Ohaaki. There was a corresponding increase in their interest in the education of their children in things Maori. It was no coincidence that with the development of kohanga reo, and Maori programmes in schools, that Reporoa College decided to establish a marae. It was said at the opening of their wharenui, which I attended, that if Ngati Tahu had not been made to get together because of hui at Te Ohaaki for the project, they would not have taken such an interest in supporting a Maori programme at the school.

All these things were positive but there were some things we did not achieve. I had ideas of creating the papakainga around Te Ohaaki Marae and providing employment. I had tried to get MWD interested in locating some houses near the marae; we had planning permission for up to five houses in a papakainga zone. When MWD was winding down their operations on site in the late 1980s, I was able to negotiate the purchase cheaply of two houses that had been trucked in for use as offices and have them located at the marae. I had also arranged for a Labour Department work skills scheme and a supervisor to refurbish them for occupation by families. Unfortunately, in order to spend that sort of money, we needed a resolution at a meeting of owners to agree to this. They did not agree, on the grounds that the Trust should not spend money on houses for particular families. I was not able to attend that meeting, but maybe it would have made no difference if I had. We offered house sites to families to build their own houses there, but there were no takers.

The problem at Ohaaki was no employment locally to induce people to move there. There was no employment at the power station because once construction was completed Ohaaki was run by remote control from Wairakei. We had negotiated 2000Kw of surplus heat energy, in addition to the steam and hot water supply to the

marae, with the idea that we could set up a local enterprise to provide some employment. We investigated uses of such heat, and DSIR and MWD provided information. An experimental greenhouse had been constructed near BR22 by DSIR but it had to be moved when the final pipework was put in. It was offered to the Trust but the problem for us was twofold: we needed to find something to grow that we could sell, and we needed a skilled supervisor to train local people to work there. We achieved neither, though I did visit an orchid-growing place and other nurseries. I was wooed by an Auckland flower-exporting company but we were not satisfied that their proposals would suit our situation. Not many months later that company went into receivership and was liquidated. This was the 1980s, just before the crash of 1987.

The Poutama Trust of the Maori Development Corporation spent some money on our behalf on feasibility studies for other projects, including a proposal to use our heat to raise prawns, part of a proposed expansion of the experimental prawn farm at Wairakei. The prawns were OK, but the economics were not. Other possible aquaculture ventures were limited by wild life regulations that protected the trout in the Waikato River, and the bogey of possible escape of exotic species into the river. The Malaysian prawns at Wairakei were accepted as they could not survive in cold water. The cost of transforming cutover scrub around the project site into pasture or horticultural land proved to be exorbitant, and we settled for an agreement that these areas should be planted in pine trees for future harvesting. But this provided no immediate employment prospects for Ngati Tahu at Ohaaki. We tried but our problems were similar to those of many other trustees of rural land and marae trying to create local employment for their young people.

The role of a trustee of Maori land in multiple ownership is never easy. The trustees are regular targets to be shot at by discontented or frustrated owners, particularly at the annual meetings of owners when accounts are presented. As an outsider, I not only had to demonstrate my usefulness as a trustee, but I also had to find my way through the bureaucratic hierarchies of several Government departments, as well as talk with politicians who might be helpful to us. On the site we were particularly fortunate in having Gary Gay appointed by MWD as Project Engineer. It took a while to persuade the Marae Committee to talk directly to MWD engineers. Someone would phone me in Hamilton if the water supply failed, for example. However, Gary was always available to talk to locals, and there were many occasions when he deputed one of his staff to help fix something, like flooding from a blocked culvert in the access road to the marae or problems with water supply during construction. Because there was more pollution from geothermal ‘nasties’ in the Waikato River (arsenic, boron, lithium, mercury) that source could not be used. The disposal of gaseous sulphur compounds to the atmosphere from the cooling tower meant that the storage in tanks of water collected from the roof of the dining hall could no longer be done. We had to negotiate a water supply from the project, which had piped fresh water from a creek some distance away. MWD engineers, advised by Jack Ridley as our consultant, built and installed the ‘steam boxes’ for cooking at the back of the dining hall. I cannot speak too highly of the friendly cooperative attitude of Gary Gay and his engineers on site. It could have all gone so horribly wrong, but it did not. I also found the MWD district office people in Hamilton very cooperative too. Once the MWD Head Office people in Wellington had been told to negotiate a lease, we did not have to deal with them directly once construction began.

During the early years of negotiation toward a lease and until the Electricity Division of the Ministry of Energy was reconstituted, we had a valuable ally in Stan Wong, the Chief Power Engineer. He was also chief adviser to the Minister of Energy, Hon. W. Birch in the early 1980s. Stan took a personal interest in Ngati Tahu at Ohaaki. Whenever I was in Wellington (I sat on some other committees that took me there periodically) I would try to call in to the Power Development Division. Stan liked to get out of the office for a long lunch so we could talk things over. He often took along one or two of his younger engineers so that they could listen and get some insight into social concerns, beyond the usual realm of engineers. I was very upset when Stan became one of the victims of the brutal restructuring and redundancies that occurred after the birth of Electricorp as a State-owned enterprise. Stan retired early, but did not deserve to be sent on his way like that.

With the birth of Electricorp I had to find my way around a new corporate structure of subsidiary companies with separate managers who had to negotiate with each other over contracts to do things. I could watch, as an outsider, the spectacle of public servants reared in a bureaucracy trying to behave as corporate individuals. I recall a long tedious meeting one hot afternoon in Wellington with two individuals from separate sections of Electricorp. I was armed with the facts and figures supplied by Jack Ridley of the dimensions of the reservoir, its appropriate location and quantity of fresh water required to supply the marae. Most of the time these two argued over negotiation of a contract between the two sections they represented. In the end, they accepted my numbers, after a good deal of quibbling, and finally conceded that the numbers were similar to what they had already estimated. Oh brave new corporate world I thought. Maybe they were exercising a financial discipline but it took up a lot of my time which was not being paid for. I did find another ally on the top floor of Rutherford House in Juliet Hensley, Corporate Relations Manager. She was one of the very few senior women in that male world of engineers and corporate managers. However, I never did sort out all the new faces in Electricorp head office but I found some friendly faces where we needed them. On site at Ohaaki, former NZE engineer John Wright, survived the restructuring to emerge in an enhanced role as Project Manager, Power Build. Others were appointed there too, but most of our dealings involving the Te Ohaaki Marae development work were with MWD, renamed Workscorp. Gary Gay and other familiar faces remained on site.

Sadly, a number of Ngati Tahu trustees have passed away. Both Blackie Tanirau and Tete Mihinui died before the opening ceremonies. Tete's wife, Bubbles Mihinui, called the karanga to bring Sir Paul Reeves and other distinguished guests on to the marae. Areta Tanirau sat with others of us, kuia, in the porch of the wharenui. Since the opening, Pare Tahau, Henry Bird and Ken Gillanders Scott have also passed on.

My resignation took effect in 1992, and new trustees have been appointed. I was appointed to the Waitangi Tribunal in 1989 and I was still employed teaching full-time at University of Waikato. My workload was becoming impossible and I could not give enough time to the Trust. I stayed until all the details, including the accounts of Government money spent on marae development, were tidied up and all funds accounted for. My job was done. It was also important to move out so local people could take over. It was not helpful to let them become dependent on me. I had coped with two lots of surgery and radiotherapy for cancer in 1983-84, and there were lingering side effects from that too. I decided that I should give priority to Waitangi

Tribunal work and do less teaching. The Ngati Tahu Tribal Trust was well established and it was time for Ngati Tahu to manage their own affairs. Ken Scott had already resigned a few years earlier, having felt he had done his job too. My time with Ngati Tahu and the Ohaaki Geothermal Power Project was an experience I am grateful to have been able to participate in. I learned a great deal. Most of all I am grateful to Ngati Tahu who made me one of their trustees, and for all the supportive friendships over those years. Ka nui nga mihi ki a koutou katoa. Arohanui.

15. References

Note: References to official publications, such as *Appendices to the Journals of the House of Representatives* (AJHR), *New Zealand Gazette* and *New Zealand Statutes,* and the newspapers are included in the text in brackets. The following are the full citations for publications cited in the text by author and date only

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Appendix I

A Note on the Name Ohaaki

At the time of the hearing of objections to the Ministerial Requirement in March 1979, I asked on behalf of Ngati Tahu that the power station be known as Ohaaki, after the name of the marae, Te Ohaaki o Ngatoroirangi, the gift or legacy of Ngatoroirangi. I provided the following explanation:

Long vowels can be distinguished in written Maori in two ways, either by doubling the vowel (ngaa) or by using a macron (ngā). The problem with deciding on correct Maori spelling of Te Ohaki is that this name incorporates several meanings: gift, legacy, promise, pact, agreement or injunction, among others. It is closely related to the words oha and koha which are concerned with generosity and giving. Williams' *Dictionary of the Maori Language* also lists a meaning of Ohaki as brimstone. The meaning of the name Te Ohaaki o Ngatoroirangi emphasises the gift and legacy aspect. The pact or agreement aspect is contained in the settlement between two brothers, Matarae and Te Rama, over their respective territories.

After some discussion at Te Ohaaki Marae, the elders and trustees of Ngati Tahu agreed that the correct form comprises all long vowels, thus Te Ōhāki or Te Oohaakii. There are problems with both forms. With the first the macrons are likely to be dropped as it is not usual to include macrons in English text. The second form is cumbersome and likely to be subject to worse forms of mispronunciation than the present form Te Ohaki. The main concern of Ngati Tahu was that the name should be pronounced correctly. The doubling of the 'a' is more likely to ensure this, and discourage a common mispronunciation of Ohaki as 'Ohackee', with the English 'a' as in 'tacky', a sound which is not used in the Maori language. It seems that the best compromise for general and popular use is Te Ohaaki.

The name Ohaaki was subsequently adopted for the power project, although the name Broadlands was retained for the geothermal field. Subsequently, the Ministry of Works, supported by the Ngati Tahu trustees, applied to the New Zealand Geographic Board for official recognition of the name Ohaaki, for the power station and the new access road to it that connects Broadlands Road and State Highway 5. The former 'Ohaki Road' which gave access to Te Ohaaki Marae from State Highway 5 was renamed Piripiri Road.

Appendix 2

Submission to the Commission for the Environment
From Evelyn Stokes, February 1978

BROADLANDS GEOTHERMAL POWER STATION ENVIRONMENTAL IMPACT REPORT

A Government proposal to build a power station on Maori land requires careful investigation for there is a great deal of concern among Maori people generally about alienation of Maori land and bitterness over past land dealings by Government. There is insufficient evidence in this Environmental Impact Report that the potential social and economic impacts on the Ohaki Marae community have been looked at in depth, or Maori attitudes and values adequately considered. The fact that very few people are presently living in the area does not diminish the importance of the land and the Marae in Maori terms.

This submission is presented in three sections. The first is concerned with environmental impact assessment procedures in general as they affect local communities. The second section contains more specific comments on Maori issues raised in the Environmental Impact Statement and the memorandum from the Department of Maori Affairs included as Appendix 14. The third section contains some suggestions for further action. The comments offered here arise out of discussion I had during 1976 with a number of people involved in social impacts of development projects in various parts of the United States and Canada and experience with the impacts of construction of the Huntly Power Station on the Waahi Marae community and related Maori land issues. At Te Ohaki there is another Marae with its sacred places, located on the bank of the Waikato River. In some respects the proposal to build a geothermal power station less than two kilometers away creates a parallel situation to Waahi.

1. Environmental Impact Assessment Procedures and Local Communities

Two important issues in environmental impact reporting procedures arose in the assessment of social and economic impacts in the Huntly situation:

1.1 Assessment of social and economic impacts of a development project must include a full appreciation and understanding of Maori cultural values and methods of communication whenever Maori land and Maori communities are involved. Such concerns are not always immediately obvious to the Pakeha observer for they involve the intangible qualities of life, spiritual and secular, found in a differing life style and set of values from the dominant, European-derived culture of New Zealand society. Perhaps the greatest source of stress and frustration at Waahi was the way social and economic impacts of the power station were persistently perceived and assessed, by government officials, engineers and local authorities, in purely Pakeha terms which ignored distinctively Maori values, particularly those concerned with land, the river and sacred places.

1.2 The degree of public participation and, in particular, communication with those most immediately affected is restricted by present impact reporting

procedures. The 1977 Report of the Planning Committee on Electric Power Development in New Zealand commented on "the content and timing of environmental impact reports" and "noted that it was difficult to reconcile the public's needs, first for early disclosure of a proposal and secondly for details which, at that stage, are not available."

1.3 In the national interest, a development project may be needed. It can be argued very cogently that this Broadlands Geothermal Power Project fits in with a national energy policy of utilising indigenous power sources. But as with any development project, it is the local people who are most likely to feel any adverse impacts. By involving them directly in the planning process from the beginning it is less likely that resentments will develop as they do when a project is perceived as being imposed from outside by Government. Among the Waahi people, and in the Huntly community generally, there were frustrations over the lack of information before construction of the power station was approved by Cabinet, and the lack of local public participation in planning for it. This situation caused anxiety locally and rumours developed which were not helped by contradictory statements from different government departments (and occasionally the same department) because much of the detailed planning had not yet been done.

1.4 There was confusion in the lines of communication at Huntly because there was no one person or place where local people could get information or take their anxieties or complaints. This sort of circular situation could be avoided if the following guidelines are used:

1.4.1 The environmental impact statement should be regarded as a preliminary assessment only, to be followed by further statements as planning proceeds.

1.4.2 The interpretation of the term "environment" should include a full and continuing assessment, or monitoring, of social and economic impacts, including understanding and appreciation of different cultural values and interpretations of impacts.

1.4.3 It should be assumed that social planning for a development project requires just as much detailed investigation over a period of time as the planning of technical and engineering aspects of building a power station.

1.4.4 The process of social planning for a power station or other development project should include real participation by local people and effective two-way communication between Government and local community should be established very early in planning.

1.5 The 1977 Report of the Planning Committee on Electric Power Development in New Zealand also commented on the "incompatibility" of environmental impact assessment procedures with statutory processes provided by the Town and Country Planning Act, and Amendments, and Water and Soil Act. "The objective of environmental impact reports include public disclosure of proposed actions, discussion of available options and a choice, and identification of impacts, including social ones. On the other hand

the statutory processes are concerned with finite proposals in relation to district plans, and the rights of objection and appeal." In addition, there is the difficulty for local people in knowing whether the Crown is going to use existing statutory processes. The Crown was not bound by the Town and Country Planning Act 1953 and its Amendments, and the public objection and appeal procedures of this legislation were not used for the Huntly Power Station. Somewhere in the environmental impact assessment procedures there needs to be a clear statement of the means by which local people can make more formal objections to a proposed project and to what extent the Crown feels bounded by existing statutory processes. Otherwise local people may spend a good deal of money, time and effort getting legal advice, and costly appearance at hearings such as those involving water rights, without getting a full discussion of what they consider are the real issues affecting them. If adequate two-way communication systems are established early and local social patterns are fully investigated and monitored, it is more likely that problems created by real or perceived impacts can be sorted out in more informal ways. This may also avert delays caused by protracted hearings and appeal procedures when this formal means is the only one available to a local community to express their concerns.

2. Maori Land and Te Ohaki Marae

The following comments raise specific issues which seem likely to affect the Maori community and require further investigation if the construction of the Broadlands Geothermal Power Station is to proceed.

2.1 Land Tenure

In Figure 7.2, Land Use of the Area, the term "Maori Land" is undefined and possibly misleading as there is more Maori-owned land than this according to other references in the text (see Section 7.3, Maori land on the power station site and vicinity). "Maori Land" is not a land use category comparable with farming or forestry. No source is given for this map. In Figure 8.3 it is not stated in what form of tenure the Maori land is held although reference to the Maori Trustee and ways and means of keeping owners informed implies multiple ownership. The status of the land affected needs further investigation and the role of the Maori Trustee clarified. There has already been resentment elsewhere created by the powers of the Maori Trustee over land held in multiple ownership. In a situation like this should the Maori Trustee have sole jurisdiction on behalf of Maori owners?

2.2 Communication with Owners

The fact that few of the owners may live on or near the land in question does not mean it is not important to them. Ownership of land, however small a share, carries with it identification with a particular place, a particular marae, and particular relationships with kin, which are not disposed of because an owner moves out of the district. This attitude to land ownership is expressed in the term turangawaewae, literally a place to stand or put one's feet, which in metaphoric terms embodies the pride a Maori person feels through identity with a particular marae, region, people and tribe. It is important therefore that Maori owners are

informed, and that Maori ways of communicating are used. A committee of representatives of local administrative bodies and the Maori Trustee is not an adequate means of communication. There is no evidence in the Report that the Marae Committee, the kaumatua (the elders) or the people generally, the tangata whenua, have been consulted. There is also a statutory local authority in the Tuwharetoa Trust Board who could be expected to act in situations where a statutory body is required. There is a precedent for this in the recognition of the Tainui Trust Board as an appropriate statutory authority who appointed a negotiator for the Waahi Community on the request of the Prime Minister, Mr Muldoon, early in 1977. It would seem, in view of Maori concern over land issues, that the feelings of the owners be investigated before "definite plans and policy with regard to land acquisition" (p.149) are finalized so that an acceptable agreement can be negotiated. Because the proposal is most likely to affect Maori land owners most, and because of the proximity of Te Ohaki Marae, it would seem that effective means of communication with all those who regard Te Ohaki as their home marae should be established as soon as possible.

2.3 Acquisition of Land

The means by which land for the power station is to be acquired should be stated. It is not recommended that the Public Works Act be invoked for this would carry with it further accusations of Pakeha Government taking of Maori land. Even a negotiated purchase may not be desirable, especially if it is a transaction with the Maori Trustee. In Maori terms land is not a commodity that can be simply bought and sold for money. Government should be prepared to consider these attitudes and make provision for alternative forms of acquisition such as a long-term leasehold to cover the life of the station and return the land in usable form to its owners when no longer required for power station purposes. In this way the owners can preserve the mana of the land by retaining title to it, the owners do not lose their turangawaewae, their foothold in the home region and speaking rights on the marae.

2.4 Access to Power Station Site

In Section 8.5, Impact on Traffic and Transportation, there is not enough information about immediate access to the site or the status of the proposed bridge and road over the Waikato River giving direct access from Broadlands Road. There is no indication of likely impacts on S.H.5 if the new bridge and road scheme is not constructed. In the present economic climate this could be a real possibility which could create problems of traffic converging on the turnoff point on S.H.5.

There is no discussion of specific access to the site, whether Option 1 or 2 is chosen (see Figure 8.3). Will the existing metal roads be used, or separate access be constructed? The map facing p.15 indicates a separate road access from S.H.5 but this is not discussed in the text. No main access route should go past the marae, in order to preserve the rural atmosphere and privacy. It may seem a paradox to talk about privacy when it has been argued strenuously at Waahi and elsewhere that a marae is a public amenity. The quiet dignity of a tangi should not be intruded upon by the noise of heavy construction traffic. The voices of the orators on any marae occasion need to be heard. Activities on the marae have been carried out in a quiet rural atmosphere and it is often the quiet and peace as

well as the spiritual qualities of a rural marae which are most appreciated by people who come home from the hassles of urban life to participate in hui or gatherings on the marae. There are certain rules of behaviour on a marae that all participants observe and all are welcome who are prepared to respect these things. Extra noisy traffic along dusty roads represents an intrusion. The construction activities may also attract sightseers and picnickers, people who may not know or respect the rules of behaviour on a marae. A further reason for avoiding this route is the sacred rock, to prevent any desecration whether by vandalism or through sheer ignorance of this sacred place by people from outside. The alternative route off S.H.5 goes past the urupa, and if this route is used then some means of protecting this from disturbance by road improvement work, or from free access by construction personnel or sightseers must be found.

The best solution to any potential problem here would be to provide separate access off S.H.5 to the construction site to ensure minimum disturbance to existing marae facilities and sacred places. An arrangement to provide access can be built in to any leasehold agreement that is negotiated. This question of access will assume even greater importance if, for any reason, the proposed direct access to Broadlands Road is not available.

5. Community Impacts

The memorandum from the Department of Maori Affairs (Appendix 14) indicates that Te Ohaki Marae "is of more than local significance'. There is no assessment of the significance of this marae in Maori terms in the Environmental Impact Report. It is a marae with a history dating back at least into the eighteenth century. John Te H. Grace, in his book Tuwharetoa, A History of the Maori People of the Taupo District, indicates that Te Ohaki is an old settlement of Ngati Tahu, a subtribe of Tuwharetoa. The hot spring by the river was named Te Umu o Kereua, the oven of Kereua, and there is a tributary stream of the Waikato called Te Wai o Kereua. Kereua was a Bay of Plenty chief who had been visiting his Tuwharetoa relatives around Lake Taupo. On his way home he killed an old chief at Taupo, because of an old grievance, and camped that night by the stream that bears his name. Because the dead chief was related to Ngati Tahu, Kereua was killed in retaliation and his body taken to Te Ohaki and cooked in the hot spring. This incident sparked off a series of battles between Bay of Plenty and Thames Valley people, particularly Ngati Maru, and Tuwharetoa. This story serves to indicate that over a long period of continuous settlement historical associations of the people with their home district are built up. Only after talking with the elders of the marae will the full significance of such historical associations be appreciated. The elders too can explain why certain places are sacred and should not be disturbed.

There is no statement concerning the nature of the present Maori community of Te Ohaki Marae or the other Maori settlement in the area, Te Toke. The Department of Maori Affairs memorandum indicates that the area is predominantly Maori but population numbers are unknown. Information is needed on numbers resident in the region and the number of people who regard Te Ohaki as their home marae and return for gatherings on the marae. The interpretation of marae community must include those families who have moved away to live for it is highly unlikely that they have cut their ties with the marae.

The Department of Maori Affairs stated "the more progressive have relocated and are unlikely to return". The assumptions underlying this statement can be questioned. The reasons for moving are probably related to poor work opportunities locally. The Broadlands project could be perceived as an opportunity to return home and get work there. There is a growing movement among many urban Maori families to return to the home marae. There may well be a number of families who would return to Te Ohaki and Te Toke, if jobs were available on the project. This obviously requires further investigation and raises the question whether some provision for housing should be made near the marae for local families who may want to return.

The Department of Maori Affairs also suggests that local Maori communities 'will benefit from employment opportunities and expected improvement in communications and transport". Better transport facilities may make commuting to work possible for more local people but this assumes that the project will provide employment for local people, especially for unskilled and semi-skilled workers. The argument that a large construction project will help solve local unemployment problems was used at Huntly, but in practice, very few of the Maori workers from the Waahi community found jobs on the project. This was mainly because they did not have the skills needed and there were relatively few positions for the unskilled. It is worth considering some arrangement which would provide real job opportunities for local people, both those still resident and those who would like to come home. Such a scheme could include some sort of preference for the tangata whenua, the home people, in getting jobs, particularly the unskilled jobs, allied with a job training programme on site. Such a scheme could provide the impetus for community development in a rural marae situation where local job opportunities are limited and local people have been forced to migrate. A precedent for this sort of programme is the preference given to workers on the Trans Alaska Pipeline under the "Alaska Hire and Minority Hire" legislation. In a more informal way it should be possible to build into Electricity Department and Ministry of Works employment policies some arrangement for ensuring that local people do benefit fully from the employment opportunities offered by power station construction, and possibly more permanent employment when the construction is finished.

6. Compensation for Loss and Damage

The Maori Affairs Department memorandum suggests that the Maori population in the immediate vicinity is too small to support a claim for extensive development of local amenities under Section 11(2)(g) of the Electricity Act public amenities clause. This seems a very narrow interpretation of the local population for in a Maori situation like this the tangata whenua, wherever they live, still come home periodically. Any loss or damage to the marae affects them as much as it affects the local residents. If tangata whenua families return to the marae to live, as suggested above, then the local Maori population will increase. The Maori Affairs Department memorandum also notes that Te Ohaki Marae is "for the benefit of the Maori peoples of New Zealand generally" so is of more than local significance. Any loss or damage to the marae, therefore, will be felt by Maori people beyond the immediate home community.

Some losses have already been sustained, for the hot water for the baths on the marae was lost when test boring for the Broadlands Geothermal Power Project began. It is suggested in Section 8.6.2 that land in the area could be affected by subsidence when large quantities of geothermal steam are extracted. If the expected subsidence is enough to cause flooding of the marae then a whole new situation and set of problems will be created. The extent of this expected subsidence requires very careful investigation and an honest appraisal of the implications for the marae. The central focus of Maori community life is the marae and because of this the land there is imbued with sacred and spiritual qualities. The simple Pakeha solution that, if there is a risk of flooding, then the marae should be relocated on higher ground, is not a solution likely to find favour in a Maori community. Any damage to the marae caused by subsidence will be perceived as being imposed by the new power station, and therefore by Government, and will be deeply resented.

3. Some Suggestions for Further Action

In order to investigate and assess Maori attitudes towards the land and the marae, and the impacts of the proposed Broadlands Geothermal Power Station, The Commission for the Environment should arrange a meeting with local people, including all owners of land that may be affected, at Te Ohaki. Such a meeting could also be used to assess the extent of local support for the proposal to change the name of the power station from Broadlands to Ohaki. This meeting would be arranged initially with the Marae Committee and elders of Te Ohaki, and in cooperation with the Ngati Tuwharetoa Trust Board and Dept. of Maori Affairs.

Such a meeting should not be a formal hearing, but a meeting conducted in a Maori way, where people can come and express their opinions and receive more information. This form of inquiry, "a community hearing", was used very effectively by Mr Justice Berger when investigating the impacts of the proposed Mackenzie Valley Pipeline in the Canadian Artic. The following extract from his 1977 Report, titled Northern Frontier Northern Homeland, (pp. 95-96) describes how these hearings operated:

> Those who wonder why the feelings of the native people have not previously appeared so strongly as they do now may find their answer in the fact that the native people themselves had substantial control over the timing, the setting, the procedure and the conduct of the Inquiry's community hearings. The Inquiry did not seek to impose any preconceived notion of how the hearings should be conducted. Its proceedings were not based upon a model or an agenda with which we, as white people, would feel comfortable. All members of each community were invited to speak. All were free to question the representatives of the pipeline companies. And the Inquiry stayed in a community until everyone there who wished to say something had been heard. The native people had an opportunity to express themselves in their own languages and in their own way.

This Report of the Berger Commission of Inquiry is a landmark in environmental impact reporting. Among other things, it grapples with the difficult area of conflicting cultural values, the potential conflict between national interest, expressed by the European-derived industrial culture, and the alternative values

expressed by local minority cultures who have not fully participated in the national life and economy of the dominant culture and want to preserve traditional values and ways of living.

A community hearing at Te Ohaki which follows traditional Maori patterns of communication and discussion would have a dual purpose. Firstly, it would be a means of involving all Maori owners and other interested people in full and frank discussions of the project at an early stage and help defuse any anxieties that may have arisen already. Secondly, it would be a means by which the Commission for the Environment could more effectively assess potential impacts from a Maori point of view. It might also achieve the longer term objective of being perceived as more than a token gesture by Government to acknowledge that there are distinctive Maori values which can and should be considered in assessing the environmental impacts of development projects in our multicultural society.

(Signed) (Dr) Evelyn Stokes
Reader in Geography

Appendix 3

OHAAKI GEOTHERMAL POWER PROJECT

Hearing of objections to Ministerial Requirement pursuant to Section 118 Town and Country Planning Act 1977

Taupo County Council, 26-27 March 1979

This document comprises a statement of principles and explanation of objections lodged with Taupo County Council in December 1978 by Dr Evelyn Stokes, Centre for Maori Studies and Research, University of Waikato, on behalf of various trustees of the Maori land affected by the Ministerial Requirement and the adjacent Maori Reserves. It is assumed that the original objections and submissions have been read and will be considered along with this document.

In general we feel that our concerns have been incorporated in the draft recommendations of Taupo County Council and explanatory comments of Peter Crawford, planner for Taupo County. Since lodging the objection, staff in the Centre for Maori Studies and Research have had several meetings with owners and have been able to obtain a clearer picture of the situation from the Maori owners' point of view. Two principles have emerged which have become the kaupapa, guidelines, for us:

1. Kia mau ki te whenua
2. Whakamahia te whenua

These are, firstly, to hold onto the land, to preserve the mana of the land, the turangawaewae of Ngati Tahu, who are the tangata whenua, the home people of the Reporoa-Ohaaki-Te Toke area. The second principle is to use the land wisely and productively so that all may benefit.

We begin with te whenua, the land, which belongs to Ngati Tahu. The geothermal resources beneath the land belong to the Crown [under the Geothermal Energy Act 1953]. There is a Maori proverb: Whatungarongaro te tangata toitu te whenua. Although people pass away, the land is still there. Whenua is also the word for the placenta which in old times was buried in the place of birth. This symbolizes the continuity from generation to generation in recognizing the tangata whenua, the people of the land. Ngati Tahu have occupied this land and identified themselves with it for many generations, so this is truly ancestral land.

The name of the land is Te Ohaaki o Ngatoroirangi, the gift of the tohunga Ngatoroirangi who was responsible for bringing geothermal activity to the Rotorua-Taupo region. Because of this name the people of Te Ohaaki consider the local geothermal activity is also part of their ancestral heritage. They have been provided with hot water and hot banks for cooking. The ngawha, the large hot pool near the marae, is of considerable historical significance to them. Geothermal activity has also provided mud and hot water with special curative powers. Te Ohaaki o Ngatoroirangi has been for many generations the principal marae and the central focus of the land and people of the tribe called Ngati Tahu. There is another meaning to this name Te Ohaaki which signifies a pact or agreement between the two brothers Matarae, the

elder, and Te Rama. This agreement established that in the area to the north of the Waikato River, Matarae took precedence in speaking on the marae, while south of the river Te Rama was the chief speaker in marae ceremonial. The central area between these two branches of Ngati Tahu is Te Ohaaki o Ngatoroirangi. We ask that the name be spelled Te Ohaaki, not Te Ohaki, to preserve the Maori pronunciation and the historic meaning of the name of this area (see Appendix 1), and that this request be submitted to the New Zealand Geographic Board.

The Town and Country Planning Act 1977 Section 3(1)g recognises and provides for "The relationship of the Maori people and their culture and traditions with their ancestral land". This is ancestral land occupied by Ngati Tahu for several hundred years. We ask what is the life of the power station that it should be necessary to purchase this land? We understand that it has been Crown policy to acquire title to land for construction of public works which are termed "permanent facilities". How "permanent" is this power station which may have a life of perhaps 30 years, or even 70 years, one human lifetime, in contrast with the 15 or so generations since the ancestor Tahu settled this land and gave his name to his descendants, Ngati Tahu?

The construction of the geothermal power station is recognised as being in the national interest to provide electricity from indigenous energy resources. But in the national interest of satisfying the demand for electrical energy, there is a potential conflict with this other matter of national importance, the relationship of Maori people, the Ngati Tahu in particular, with their ancestral land. In accepting the principle, kia mau ki te whenua, hold on to the land, the owners are prepared to negotiate a lease with the Crown so that construction may go ahead because they do not wish to hinder development. Some owners see a lease as another form of alienation, no different from a sale. However, if the terms of the lease include provisions for the preservation of the papakainga, the protection of Maori values and the long term welfare of Ngati Tahu, then a lease appears the only viable option. It preserves the mana of the land for the tangata whenua. They retain their turangawaewae, their foothold on the land. A lease would allow surplus land to be returned to the owners without fuss when the construction phase is over. It means Ngati Tahu retain a continuing interest in their ancestral land and its resources for generations to come. The people do not wish to become known now and in the future as Ngati Tahu who sold their land.

Our second principle is whakamahia te whenua, that is to use the land wisely and productively and for the benefit of the people. The national interest will be taken care of in the production of electricity and the experience and expertise that engineers and scientists will acquire in developing geothermal energy resources for power production, and Ngati Tahu do not wish to restrict that. Ngati Tahu interests include participation in the benefits that the development of geothermal energy resources may bring to the district. There is another Maori proverb: Nau te rourou naku te rourou ki te ora o te iwi. Each contributes a share to the total welfare of the people. Put in Pakeha terms this is expressed in the report of the New Zealand Planning Council (*Planning Perspectives 1978-1983* p.92), who see a "need for a positive role in national development for the Maori people.…Longer-term social goals would therefore be assisted through a commitment to make it less difficult than it has been for the Maori to expand cooperative production from the land." Ngati Tahu offer their land for lease for development of geothermal energy resources on condition that they

also participate in this development. Participation involves two related issues: (1) the re-establishment of the papakainga at Te Ohaaki and (2) employment and community development in the district.

The Papakainga

A papakainga is a community area and its central focus is the marae with its meeting house and associated facilities. A marae is an existing use under the Town and Country Planning Act and the Second Schedule of this Act requires that provision be made in District Schemes for marae and ancillary uses, urupa reserves, pa and other traditional and cultural Maori uses. Te Ohaaki has always been the principal marae of Ngati Tahu and the meeting house, Tahumatua, is named after their eponymous ancestor Tahu. The meeting houses on the other Ngati Tahu marae near Reporoa and at Te Toke are named Matarae and Te Rama respectively, after the two brothers, descendants of Tahu, who made the pact referred to earlier. The meeting house at Waimahana is Rahurahu, commemorating the relationship with the tribe called Ngati Raukawa which was cemented by marriage between descendants of Tahu and Rahurahu.

Ngati Tahu wish to keep their marae Te Ohaaki o Ngatoroirangi where it is. It has been there a long time and they have no reason to move it. While alternative sites could be found, all these present additional problems and the people do not wish to make problems for future generations. They feel that because the marae was there first, any development in the area should acknowledge its presence and preserve its future existence on the same site. We have been told there may be subsidence of the land at an unknown rate, and that reinjection procedures may prevent or reduce this subsidence. We submit that the marae should stay where it is.

Associated with the marae and an integral part of the papakainga are the urupa, ngawha and sacred rock. We are pleased to see that the draft recommendations of Taupo County council exclude the areas between the ngawha and the marae to the west, and between the rock and marae to the south, from the designated area. We ask the Crown whether the bore labeled BR3 is necessary for the project as it lies between the urupa and ngawha and intrudes upon a potential housing area for the papakainga. We also ask whether this bore is responsible for the loss of water in the ngawha and ask what steps are being taken to restore the water level in this historic hot pool.

We welcome the concern for preservation of historical and cultural sites. Because it has been continuously occupied for over 100 years, Te Ohaaki qualifies as an historic site under the Historic Places Amendment Act 1975. In theory the compilation of a map of historic and cultural sites is a good one but there are some difficulties. Firstly, not all sites are known or the elders are for various reasons reluctant to reveal them. Secondly, and this follows from the previous comment, if a map is produced it should be lodged with the Project Engineer and not made generally available as such a document may become an invitation to artifact hunters to desecrate such sites. The burial grounds are presently covered with blackberry and pine trees. These areas in Pakeha eyes appear untidy and neglected. In the Maori view, this dense vegetation cover provides excellent protection for unmarked graves. For unmarked archaeological sites which are revealed in the course of construction of the power project, we suggest that a formula be adopted similar to that worked out with the local

Maori community for extraction of ironsands at Taharoa. This requires that all work on that site stops immediately, and is not resumed until local elders have been consulted and a decision made about the site. It would be wise for the Project Engineer to appoint as an adviser an elder of Ngati Tahu who is the person to contact initially and who is responsible for dealing with such situations as Maori custom requires.

A marae is the focus of community life but it needs people to "keep it warm", a Maori concept known as ahi ka. The mauri or soul of the people is placed in the meeting house and it is there that the people gather on important occasions, to discuss matters of tribal importance, for tangihanga and other gatherings. The marae at Te Ohaaki is still used but its functions are restricted by the lack of people living at the marae. This lack of residents at Te Ohaaki should not be interpreted to mean that the marae is no longer important. It retains its status in Maori terms despite the fact that residents have had to move away in the last few decades to find jobs because local employment opportunities are very limited. Approximately one-third of owners in Tahorakuri A1 Section 1 (Ohaki Papakainga) are resident in the Rotorua-Taupo district. The owners wish to re-establish some housing around the marae. First priority is a caretaker's house. The return of families to any rural marae is restricted by local employment opportunities, but there are some people who have expressed a wish to return to Te Ohaaki to live. It is not likely that these numbers will be large at this stage. A nucleus of families around the marae is desired to provide the warmth and care required to promote the fuller use of this marae for the benefit of Ngati Tahu who wish to return periodically for special occasions, or to stay awhile, or spend holiday periods with their kin away from the pressures of urban life. It would also provide a place where the young of Ngati Tahu may learn from their elders in a traditional environment.

We welcome the statement that Taupo County Council would initiate a change in zoning to create a Papakainga Zone at Te Ohaaki. We would like this Papakainga Zone to include all the area of Tahorakuri A1 Section 1 (Ohaki Papakainga) which is excluded from the designation. The restriction of this zone to Section 1 avoids the title problems that would be created if the zone were located on any of the other blocks. The large majority of owners are in Tahorakuri A1 Section 1 and when the Partition Order for this block was made in the Land Court in 1932 it was agreed that all owners should be in this block and it should be called Ohaki Papakainga Reserve. More important, this would preserve the relationship between the houses and the marae. Most of the houses in the old papakainga were located on the river bank by the marae. We feel that this area should be preserved for the papakainga.

We note that on the plan showing the layout of the proposed geothermal power project, possible sites for water treatment and sewage treatment plants are marked. We ask whether these are for domestic or industrial purposes, and whether any housing at Te Ohaaki could be linked to these services. Is there any other housing envisaged on the site for a caretaker or other officers during construction and operation phases? In the past water was obtained from the river at Te Ohaaki but with increasing urbanization and industrial development upstream this supply is no longer satisfactory without treatment. We are also concerned that the construction and operation of the geothermal power station does not result in further undesirable discharges into the Waikato River. We also ask what provisions are being made to

supply geothermal water for heating and other purposes to the marae buildings and associated housing. We also ask for specific details of noise levels from the bores labeled BR3, BR20 and BR22 which are closest to the marae. How often is it necessary to let off steam, for how long, and does this occur at the bore or at the flash plant? We are concerned about noise nuisance, vibration and reverberation created by many of the bores which might disturb activities on the marae. We are also concerned about dust and construction noise which might affect families living in houses built near the marae. Like other residents of the Broadlands area, we are still concerned about fog in the area and the potential for increased fog levels when the power station begins operation. We also ask for details of proposed landscaping and land use around the power station. There are strong arguments for preserving existing trees and planting new ones in a buffer zone to shield the papakainga from noise and protect privacy. People living in the papakainga or staying at the marae for special occasions do not wish to become a target for the sightseers that a large construction project tends to attract. What are the agricultural potentials for this land? Would it be possible to clear part of it and graze sheep between the pipeworks or would pine trees be a more lucrative crop in the long term? Perhaps a combination of pine trees and grazing stock would provide some income and employment for the owners. We note the comments of N. J. Mace, Farm Advisory Officer, Ministry of Agriculture and Fisheries, in the *Environmental Impact Report* that the soils on the western side of the river at Te Ohaaki are "capable of reasonable pasture production", that despite some natural limitations – the droughty nature of the soil, poor natural fertility and low winter soil temperatures – "this area has a potential far in excess of its present production" which could be realised if Lucerne were planted. The "Maori owned land could potentially be farmed more intensively than the area to the east of the river".

Employment and Community Development

Many people in the Reporoa-Broadlands-Te Toke area, as well as Te Ohaaki owners from further afield, perceive this power project as an opportunity for employment in the district. We ask that local people, Maori and Pakeha, be given preference for jobs on the construction site. We suggest that the definition of local people for this purpose include absentee Te Ohaaki owners and their families. We are aware that not all local aspirants for jobs will have the skills required. We ask what job training programmes will be available for local people, both in trades required in construction and for the operation of the power station?

We are also concerned with employment opportunities in the long term. If people are encouraged to return to the district to work on the power project, what will they do when this is completed? It has been suggested in various places that geothermal energy and by-products could form the basis for industrial and agricultural development in the district.

We welcome the Taupo County Council recommendation that research in this field be made available to the public. We see a need for more research and discussion in the future which will enable Ngati Tahu to decide how best to participate and make a positive contribution to community development in the district.

We are well aware of the difficulties in communicating with such a large and dispersed community as the Te Ohaaki owners. We are also aware that this hearing is

just the beginning of negotiations, that not all decisions have been made, and not all answers can be provided at this stage. Other issues may arise which can not at this time be envisaged by any of the parties involved. It should be a working principle in this sort of situation that social planning will take as much (or more) time as the technical and engineering work required for a development project of this scope and scale. It is important to establish very early some effective lines of communication with local people. We suggest the Project Engineer appoint a community liaison officer for the project before construction starts. It is important in a large and complex project that there be a particular person on the project where questions and complaints and other concerns can be directed. On the Maori side, steps are being taken to set up trustees with power to negotiate with the Crown and the Land Court procedures required for this will be completed in due course.

We can not stress too strongly that when issues affecting the Maori community arise, the customary way of dealing with them is to discuss them on the marae and in the meeting house until some consensus is reached. The trustees will have certain powers to negotiate but there will also be times when they will want a wider expression of opinion from owners. We ask that when issues of concern to the Maori owners arise, all the trustees are consulted and, if necessary, a meeting of owners be called. This procedure may seem long-winded and tedious, but in the long term is much more effective than inviting a token Maori spokesperson to sit on a forum or committee. Such a person would not be able to make any commitments on behalf of Maori owners without first consulting at least the trustees anyway.

In conclusion, Ngati Tahu do not wish to stop the construction of the power station. We believe that with goodwill and good communication between government, local authorities and the Maori owners, a satisfactory agreement can be negotiated which will preserve Maori interests and allow construction to proceed. If Ngati Tahu are encouraged to participate in the development of the geothermal energy resources under their lands, they will be better able to make a positive contribution to the future development of the region. They will have some stake in this development and be less likely to regard this whole geothermal project as something imposed on them from outside, by a remote government in Wellington