

ORIGINAL

Decision No. A 067/2004

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of Appeals under Section 120 of the Act

BETWEEN

NGATI RANGI TRUST

(RMA 874/01)

TAMAHAKI INC SOCIETY

(RMA 875/01)

WHANGANUI RIVER MAORI TRUST

BOARD, HINENGAKAU

DEVELOPMENT TRUST, NGATI

HIKAIRO HAPU FORUM, NGATI

TAMA O NGATI HAUA TRUST,

PUNGAREHU MARAE

INCORPORATED SOCIETY ON

BEHALF OF NGATI TUERA HAPU &

NGATI RANGI TRUST

(RMA 877/01)

Appellants

AND

THE MANAWATU-WANGANUI

REGIONAL COUNCIL

Respondent

AND

GENESIS POWER LIMITED

Applicant

BEFORE THE ENVIRONMENT COURT

Environment Judge R G Whiting (presiding)

Environment Commissioner A H Hackett

Environment Commissioner S K Prime

Environment Commissioner O M Borlase



HEARING at Taupo on 29 and 30 September 2003, 1-3 October 2003 and 6-10 October 2003; at Ohakune on 20-24 October 2003 and 28 and 29 October 2003; at Tiorangi Marae on 4-7 November 2003; at Taumarunui on 10-12 November 2003; at Wellington on 8-10 December 2003, 12, 17 and 18 December 2003.

APPEARANCES

Mr P F Majurey and Ms K Broughton for Genesis Power Limited
 Mr J Milne for the Manawatu-Wanganui Regional Council
 Mr J P Ferguson and Mr M Mahuika for Ngati Rangi Trust, Tamahaki Incorporated Society and Whanganui River Maori River Trust Board & Others
 Mr B J Cowper for Mighty River Power Limited
 Mr D Soper, Mr M Hickford and Mr A Irwin for the Attorney-General and the Minister in Charge of Treaty Negotiations

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DECISION

Introduction

[1] The essence of this case concerns the recognition of Maori cultural matters and how those matters can be accommodated and provided for under the provisions of the Resource Management Act 1991. Pertinent to this important issue is the extent to which Maori and other interests may be reconciled under Part II of the Resource Management Act 1991.

[2] The issue arises in the context of applications for Resource Consents to enable the Tongariro Power Development Scheme to continue in operation. The conflict with Maori stems from the diversion of water from the headwaters of the Whangaehu, Whanganui and Moawhango Rivers into Lake Taupo and thence into the Waikato River. Such diversions are culturally unacceptable to Maori.

[3] This case involves the hearing of three appeals against the decision of the Manawatu-Wanganui Regional Council to grant water-related resource consents to Genesis Power Limited. The Council's decision was made as part of a joint hearing committee process involving the Waikato Regional Council. The joint decision granted 53 resource consents in total.¹

[4] The Genesis applications relate to specific water-related activities throughout the TPD as well as macro-operational activities such as scheme-wide maintenance. A summary of the applications is set out in Appendix 1.

[5] Fifteen appeals were lodged in respect of the joint decision. Nine appeals have been withdrawn and three have been settled. As a result of the settlement reached with those appellants who have either withdrawn or settled, consent memoranda² have been lodged with the Court for approval. The three appeals that remain are the subject of this hearing. All of the consents opposed by the three Appellants are within the territory of the Manawatu-Wanganui Regional Council.

¹ Waikato Regional Council – 23 resource consents; Manawatu-Wanganui Regional Council – 30 resource consents.

² RMA 873/01 – Director General of Conservation; RMA 880/01 – M Birch; RMA 882/01 – NZ Recreational Canoeing Association.



The hearing

[6] The hearing of the three remaining appeals took place at Taupo, Ohakune, Tirorangi Marae, Taumarunui and Wellington between 29 September 2003 and 18 December 2003. We heard from 44 witnesses, read the briefs of 7 witnesses and sat for 25 sitting days. We undertook a three-day site visit during the first week of the hearing, which covered the whole of the TPD scheme. This was carried out using a four-wheel drive motor vehicle. We also viewed the scheme from the air by helicopter. This site visit was organised by Genesis.

[7] We carried out a one-day site visit of the Eastern Diversion, organised by Ngati Rangi, during the week we sat on the Tirorangi Marae. Finally we carried out a one-day site visit of the Whanganui River from Taumarunui to Pipiriki during the week we sat in Taumarunui. This was organised by the Whanganui iwi. The site visits helped us to further understand and evaluate the evidence.

[8] In addition, we received 4 lever arch folders containing the agreed bundle of documents, which included the *Whanganui River Report*³ delivered by the Waitangi Tribunal in 1999 and the *Planning Tribunal Decision on Whanganui River minimum flow appeals 1990*⁴. We found both of these documents helpful as background and will refer to them at times during the course of this decision.

[9] We heard detailed opening and closing submissions from Counsel, for which we are grateful. It is not practicable in this decision to refer to all that was said in evidence or by way of submission. We have had regard to all the evidence, the exhibits and documentation produced and the submissions of Counsel, in reaching our decision.

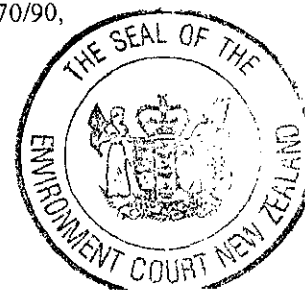
The Tongariro Power Development

[10] The TPD is located in the central North Island, south of Taupo. It is a hydro-electric power generation scheme planned and constructed progressively between 1960 and 1983⁵. It is situated on, and partially encircles, a scenic and interesting landscape, the

³ Wai 167, Waitangi Tribunal (1999).

⁴ *Electricity Corporation of New Zealand Ltd v The Manawatu-Wanganui Regional Council* (W70/90, unreported, Judge Sheppard, 29 October 1990).

⁵ Drinkrow, EiC, paragraph 3.1.



geologically active Scenic Plateau. The mountains of the Tongariro National Park, Ruapehu, Tongariro and Ngauruhoe, lie in its centre.

[11] In broad terms, the scheme operates by channelling water from head water streams flowing from the mountains of the central Volcanic Plateau, to two power stations: Tokaanu and Rangipo, before discharging into Lake Taupo and from there into the Waikato River. Water is channelled through two major diversion schemes lying either side of the Ruapehu/Tongariro mountain chain: the Eastern and Western diversions. A schematic overview of the scheme is attached as Appendix 2.

[12] Mr Denis Drinkrow, the manager of the TPD, described its operation in some detail. For ease of explanation he divided the scheme into four geographical sections: the Eastern diversion, the Tongariro section, the Western diversion and the Rotoaira section.

The Eastern Diversion

[13] The Eastern diversion collects water from the streams and rivers draining the southern flanks of Mt Ruapehu. The water is collected from 22 tributaries of the Whangaehu River by way of separate intake structures into an underground aqueduct, known as the Wahianoa aqueduct. It is then transferred through the Mangaio Tunnel into Lake Moawhango.

[14] Lake Moawhango is an artificial storage lake, created by the damming of the Moawhango River with a high concrete arch dam known as the Moawhango Dam. Lake Moawhango is the only major storage area within the TPD and nearly all the water collected is taken northward to the upper Tongariro River through the 19.2 kilometre Moawhango Tunnel, for electricity generation at the underground Rangipo power station and the Tokaanu power station.

[15] A continuous minimum flow of 0.6 cumecs⁶ at Moawhango Village is being maintained by Genesis through a special release valve located in the dam.⁷

⁶ Cumecs means cubic metres per second.

⁷ This is a condition of the consents appealed against and Genesis has been operating to this minimum plan voluntarily, as an act of good faith, since January 2001. In addition, the new consents require the release of four flushing flows of 30 cumecs from the dam, each for nine hours duration over the summer months.



[16] One of the appellants, the Ngati Rangi Trust, were primarily concerned about the taking of water from the tributaries of the Whangaehu River and the damming of the Moawhango River.

The Tongariro Section

[17] The Tongariro section begins at the Waihohonu intake and tunnel, which transports water from the Waihohonu Stream on the eastern side of Mt Ruapehu to the Rangipo dam on the Tongariro River. The head pond impounded by the dam is relatively small and in addition to receiving water from the Waihohonu tunnel and Moawhango tunnel, it receives the natural flow of the Tongariro River.

[18] Water from the Rangipo head pond is conveyed through an 8.6 kilometre head race tunnel to the underground Rangipo power station, located 230 metres below ground within the Kaimanawa Forest Park. The station has an installed capacity of 120 MW, comprising two 60 MW machines and is operated via remote control from the Tongariro control centre at the Tokaanu Power Station.

[19] There is currently a minimum flow requirement to maintain a 0.6 cumec flow downstream from the dam structure at all times. The Rangipo tail race tunnel discharges into the Tongariro River below the Waikato Falls. Downstream of the discharge is a relatively large intake called the Poutu intake, which collects water for diversion to Lake Rotoaira via the Poutu tunnel and canal and thence into the Rotoaira Channel. There is a minimum flow requirement of 16 cumecs below the Poutu intake which applies unless the natural flow of the Tongariro River is less, in which case no water can be diverted.

[20] The diverted water is discharged into the Rotoaira Channel adjacent to the Poutu Dam which dams the Poutu River, which was the natural outflow for Lake Rotoaira. Downstream a residual flow of 0.6 cumecs is maintained through a remotely operated valve set into the dam. The 2001 resource consents impose a new minimum flow regime of:

- 0.6 cumecs during the months February to October;
- 0.3 cumecs during November to December; and
- 0.5 cumecs during January.

We were not directly concerned with the consents relating to the Tongariro section as the appeals relating to this section have been settled.



The Western Diversion

[21] The Western diversion collects water from the Whanganui River and its tributaries which drain the western side of Mt Tongariro and Mt Ruapehu. The water so taken is diverted through the 16.5 kilometre Whakapapa-Tawhitikuri-Whanganui tunnel. Following separate collection of water at a series of intakes, including one on the Whanganui River, the water is conveyed by way of Lakes Te Whaiiau and Otamangakau to the Wairehu canal that flows into Lake Rotoaira.

[22] The headwaters of eight Whanganui tributary streams and rivers are intercepted and diverted to Lake Rotoaira from where the water is taken to generate power at the Tokaanu Power Station. Appendix 2 shows the layout of the Western diversion, including those points at which water is diverted. These are the Whakapapa, Okupata, Taurewa, Tawhitikuri, Mangatepopo and Whanganui intakes and the Te Whaiiau and Otamangakau streams.

[23] Since 1992, a minimum flow of three cumecs has been maintained below the Whakapapa intake. In addition there is a requirement to maintain a flow of 29 cumecs on the Whanganui River at Te Maire, approximately 20 hours flow time below the Whanganui intake. This rule applies from 1 December to 31 May each year.

[24] The appellants, the Whanganui Maori Trust Board and the Tamahaki Incorporated Society, were primarily concerned about the taking of the waters from the Whanganui River and its tributaries.

The Rotoaira Section

[25] The Rotoaira section is the northernmost section of the scheme. It includes Lake Rotoaira, which lies between Mt Tongariro and Mt Pihanga, southwest of Lake Taupo. The Lake acts as a reservoir for the Tokaanu Power Station. From there the water is taken through the Tokaanu intake and tunnel to the Tokaanu Power Station and thence into the Tokaanu tail race.

[26] The Tokaanu Power Station is a 240 MW capacity station situated at the base of Mt Tihia at the southern end of Lake Taupo. The station utilises the 207 metre head between Lake Rotoaira and Lake Taupo to generate electricity. Water from the power



station passes into the Tokaanu tail race channel, a 3.8 kilometre channel that discharges into Lake Taupo in Waihi Bay.

[27] From Lake Taupo the water then passes into the Waikato River where it is used by the Waikato hydro system, which consists of eight hydro dams and nine generating stations, owned and operated by Mighty River Power Limited.

[28] We were not directly concerned with the consents relating to the Rotoaira section, or the effect on the Waikato River, as appeals relating to this section were settled. However, Mighty River Power Limited supported Genesis in these proceedings, as in hydrological terms the water diverted from the TPD scheme into Lake Taupo comprises approximately 20% of the average flow in the Waikato River at the Taupo gates.

The Resource Consents

[29] As we have said, the Council's decision granted a total of 53 resource consents. As a result of the settlements reached between Genesis and other appellants many of the 53 resource consents are no longer at issue. The resource consents that concern us are summarised in Appendix 1. Generally they relate to:

- (i) **The Wahianoa Aqueduct and Mangaio Tunnel** – to dam, divert and take water into the Wahianoa aqueduct; and to discharge this water into the Mangaio Stream (and thence into Lake Moawhango);
- (ii) **The Moawhango section** – to dam the Moawhango River; to discharge (spill) water to the Moawhango River; to take water from Lake Moawhango into the Moawhango tunnel; and to discharge this water into the Tongariro River;
- (iii) **The Whakapapa to Mangatepopo intakes – Western diversion** – to dam and take water from the Whakapapa River and the Okupata, Taurewa, Tawhitikuri and Mangatepopo Streams; and to discharge all water taken into Lake Te Whaiiau;
- (iv) **Whanganui intake** – to dam and take water from the Whanganui River; and to discharge this water into the Te Whaiiau Stream (and thence into Lake Te Whaiiau).

Proposed conditions of consent

[30] The consents granted by the Council were subject to extensive conditions. Many of the conditions have been amended, subject to the Court's approval, following



agreement reached with some of the appellants who have either withdrawn or lodged consent memoranda. The proposed amendments to the conditions apply in some instances to the “live” appeals subject to these proceedings. Also, during the course of the hearing, further proposed amendments have been proffered by Genesis and the Council, in an endeavour to meet the concerns of the appellants. The latest edition of the proposed conditions is attached as Appendix 3.

The Tongariro Power Development – a historical perspective

[31] The historic development of the TPD is set out in some detail in the *Whanganui River Report*.⁸ We summarise as follows.

[32] The Crown’s right to use water for hydro electricity was initially laid down in the Water-Power Act of 1903. That Act vested in the Crown, subject to any rights lawfully held, the sole right to use water for electricity with the power to delegate rights to local authorities. That right remained with the Crown through a succession of Acts up to and including the Electricity Act 1945, administered by the State Hydro-electric Department – a responsibility that passed to the Ministry of Electricity in 1958.

[33] In 1955, the Government commissioned a technical appraisal for the Tongariro scheme. In 1958 the Crown issued an Order in Council authorising it to take water from the Whanganui, Tokaanu, Tongariro, Rangitikei, and Whangaehu Rivers and their tributaries and to raise or lower water levels. There was no limit on the duration. A further Order in Council was also issued in 1958 enabling work to be undertaken on land without giving prior notice or obtaining consents.

[34] The Government approved the scheme in principle in 1964 and according to the *Whanganui River Report*:

“At that point, there had been no public consultation. Although there were pros and cons, the advantages were seen considerably to outweigh the disadvantages – of which six were foreseen. One was the effect of reduced flows on the Whanganui, Rangitikei and Whangaehu Rivers, and another was the effect on trout fisheries, particularly in the Tongariro River and Lake Rotoaira. The Ministry was directed to undertake discussions and further studies and to negotiate compensation with those whom it thought could be affected.”⁹

⁸ The Whanganui River Report, page 233 onwards.

⁹ Whanganui River Report, page 236.



[35] Agreement in principle was reached with the relevant government departments as to the effects on fish in the rivers and their tributaries and compensation was negotiated with the Tuwharetoa Maori Trust Board, who owned Lake Rotoaira. In 1965, the Electricity Department agreed with the Department of Internal Affairs to maintain minimal flows in the Whakapapa River, that would ensure a water temperature safe for fish. In 1973, the Minister of Electricity authorised a minimum flow of 0.57 cumecs.

[36] Because of reduced flows in the Whanganui River at Taumarunui, the Taumarunui Borough Council and the Minister of Electricity reached an agreement on compensation. Liquidated damages were payable if the main daily flow at Piriaka dropped below 9.9 cumecs. It was also agreed:

- The flows in the Whanganui and Whakapapa River would not be allowed to fall so low as to endanger fish;
- The river bed was to be kept clear of plant growth; and
- All reasonable steps were to be taken to ensure that jets boats could continue to operate on the river.¹⁰

[37] In other settlements, the Whanganui Harbour Board was to be compensated for any adverse effects that had to be made good, and the National Historic Places Trust was to enter into an agreement with the Tuwharetoa Maori Trust Board, to carry out an archaeological programme to record and protect sites at Lake Rotoaira and on the lower Tongariro River.

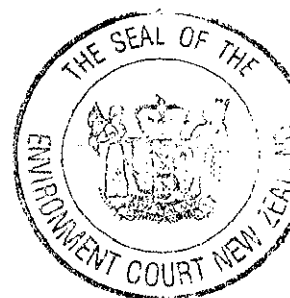
[40] There was no consultation with either Ngati Rangī or the Whanganui iwi. Mr Archie Taiaroa, Chairman of the Whanganui Maori Trust Board, gave evidence. He told us:

At no time during the development of the Tongariro Power Project were Whanganui iwi or any of its representatives consulted, although the Crown were fully aware of Whanganui iwi claims.¹¹

[41] Mr Taiaroa then went on to tell us that the only meeting about the TPD construction decisions that he was aware of occurred in the late 1960s. This was a meeting in 1968 arranged by the Taumarunui Borough Council to advise the public of the

¹⁰ Whanganui River Report, page 237.

¹¹ Taiaroa, EiC, paragraph 15.



diversion of the headwaters of the Whanganui River and the likely impact of that on the town. A number of Maori residents of Taumarunui led by Hikaia Amohia were present at the meeting. After an explanation of the diversion of the headwaters given by the Mayor, and the then Minister of Electricity, Mr Amohia stood and addressed the meeting. He raised the issue of Maori ownership of the Whanganui River, and asked why they were taking water out of the river without the approval of the Whanganui iwi. He was asked by the chairman of the meeting, who was the Mayor, to sit down because he was out of order. There was no response from either the chairman or the Minister about concerns raised by Mr Amohia. Of this Mr Taiaroa said:

There was nothing particularly unusual about this reaction from the chairman of the meeting and the Minister to an explanation of the iwi point of view. It reflected the common failure or unwillingness of the Crown, local authorities and developers to understand the Maori perspective.¹²

[42] As we have said, the TPD was planned and constructed progressively between 1960 and 1983¹³. It first became operative in 1971¹⁴. At that time, the diversion was controlled by the Electricity Department, a division of the Crown. The Crown had a perpetual right to divert water by the 1958 Order in Council, as validated by section 31 of the Water and Soil Conservation Amendment Act 1973.

[43] In March 1988, the Crown agreed, pursuant to section 23 of the State-Owned Enterprises Act 1986 and section 3 of the Electricity Operators Act 1987, to transfer all its assets and business in electricity generation to the Electricity Corporation of New Zealand Limited (ECNZ). As part of its agreement with the Crown, ECNZ agreed to apply within 15 years for water rights to replace those formally held in perpetuity.

[44] In 1977, the New Zealand Canoeing Association applied to the National Water and Soil Conservation authority, which pursuant to section 14(3)(o) of the Water and Soil Conservation Act 1967, was empowered to fix the minimum acceptable flow of any river on the recommendation of Local Catchment Boards constituted as Regional Water Boards – s20(5)(d). It fixed minimum flows at Te Maire at 22 cumecs from 1 December to 14 February and for the days of Easter of each year, and at 16 cumecs for the rest of the year. The decision applied for five years, expiring in 1988.

¹² Taiaroa, EiC, paragraph 19.

¹³ Drinkrow, EiC, paragraph 3.1

¹⁴ Whanganui River Report, page 247.



[45] In March of 1987, the catchment board sought to fix new minimum flows before the 1988 expiry date. In March 1988 the Authority was abolished and the Catchment Board itself was empowered to do this. An appeal could be made to the then Planning Tribunal. The Board fixed minimum acceptable flows for five years expiring on 31 October 1993 as follows:

1. The intake to the upper Whanganui River immediately downstream of the Western diversion was fixed at 100% of the natural flow;
2. The intake to the Whakapapa River at the footbridge recording site was fixed at a minimum flow of 8.5 cumecs between 1 December and 30 April and 4.2 cumecs for the rest of the year, subject to the flows being naturally available;
3. ECNZ was able to seek a lower minimum flow at times of national power shortage.¹⁵

[46] Both ECNZ and the Whanganui River Maori Trust Board filed appeals with the Planning Tribunal against the Board's decision. The Trust Board sought the rivers natural flow as the acceptable minimum flow. ECNZ sought restoration of the 1983 levels for a five-year term.

[47] The Planning Tribunal sat for 84 sitting days, travelled extensively and heard from 105 witnesses. The Tribunal delivered its decision on 29 October 1990. The Board's decision was cancelled and the Tribunal:

- (i) Fixed the minimum flow of the Whakapapa River at the footbridge flow-gauging station from 1 June 1991 at 3 cumecs or the natural flow of the river, whichever is the lower;
- (ii) Fixed the minimum flow of the Whanganui River at the Te Maire flow-gauging station from 1 June 1991 for the period from 1 December in each year to 31 May in each following year at 29 cumecs, or the natural flow of the river, whichever is the lower.¹⁶

¹⁵ Whanganui River Report, page 249.

¹⁶ Whanganui River Report, page 253.



[48] Genesis was formed on 1 April 1999 following the split of ECNZ into three state-owned enterprises. The shareholding ministers of Genesis are the Minister of State Owned Enterprises and the Minister of Finance. Genesis lodged Resource Consent applications for the TPD on 30 June 2000, being more than six months prior to the expiry date of the exiting authorities (30 September 2001).

[49] The committee of commissioners jointly appointed by the councils, under section 114(5) of the Local Government Act 1974 and holding delegated authority under section 34(3) of the Resource Management Act, heard evidence for a total of 23 hearing days from 30 October 2000 to 3 August 2001. In a decision, dated 30 August 2001 it granted a total of 53 consents subject to extensive conditions. Relative to these appeals, the conditions of consent provided for a minimum flow regime. As a result of agreements reached by Genesis with a number of other appellants, the flow regime has been amended slightly. It is now proposed:

- (i) To maintain a flow of 29 cumecs on the Whanganui River at Te Maire, approximately 22 kilometres below Taumarunui, from 1 December to 31 May each year, or the natural flow whichever is the lesser. This is to be achieved by a combination of releases from either or both the Whakapapa intake or through the Lake Otamangakau release valve. Because Te Maire is about 20 hours flow time downstream of the releases some flexibility in the release is to be allowed;
- (ii) A minimum flow down the Moawhango River of 0.6 cumecs below the Moawhango dam;
- (iii) A minimum flow down the Tongariro River of 0.6 cumecs below the Rangipo dam; (not subject to appeal)
- (iv) A minimum flow down the Tongariro River of 16 cumecs below the Poutu intake; (not subject to appeal)
- (v) A minimum flow down the Poutu Stream of 0.6 to 0.3 cumecs below the Poutu dam; (not subject to appeal)
- (vi) A minimum flow down the Whanganui River of 0.3 cumecs below the Whanganui intake;
- (vii) A minimum flow down the Mangatepopo Stream of 0.5 cumecs below the Mangatepopo intake; (not subject to appeal)
- (viii) A minimum flow down the Whakapapa River of 3 cumecs below the Whakapapa intake.



[50] The minimum flow of 29 cumecs at Te Maire reflects the decision of the Planning Tribunal hearing in 1990. The committee had this to say:

The 1990 Planning Tribunal Hearing for the Whanganui River resulted in the fixing of a minimum flow for the upper Whanganui River at 'Te Maire' of 29 cumecs. This minimum flow is required to be met during the period 1 December to 31 May each year.

The 1990 Planning Tribunal process was exhaustive involving many weeks of hearings and the presentation of vast amounts of technical evidence from local and international experts, together with local iwi and other members of the community. There was no substantive challenge to this minimum flow during TPD Hearing process,...

Given the lack of opposition to the existing minimum flow for the Whanganui River at Te Maire, the Committee sees no reason to alter the status quo established by the Planning Tribunal in 1991.¹⁷

[51] The minimum proposed flows have been determined following a lengthy consultation process between Genesis and a number of appellants and submitters to mitigate the effects of the diversion of the waters on such matters as:

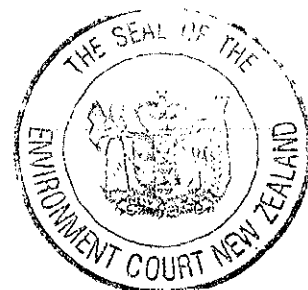
- (i) the natural character of rivers and streams;
- (ii) the physical and biological environment; and
- (iii) the protection of indigenous habitats such as native fisheries and the blue duck.

[52] While these matters relate to and, in some respects underlie Maori cultural matters, and to that extent tend to mitigate the appellant's concerns, nevertheless, from our understanding of the evidence, the primary reason for fixing the minimum flows was not for the purpose of mitigating Maori concerns.

The Maori appellants

[53] The Whanganui iwi, Ngati Rangi and Tamahaki are all appellants in this case. Ngati Rangi and Tamahaki are both hapu of the Whanganui River. We were told that Tamahaki has the mandate to represent hapu with interests along the Whanganui River from the Pipiriki area to the Whakaharo Maraekowhai area. Their interests are interrelated with those of Whanganui iwi who object to the diversion at the headwaters of the Whanganui River.

¹⁷ Paragraph 8.2.5, page 99, TPD Hearings Committee Decision.



[54] Ngati Rangi's interests are similarly interlinked with the Whanganui River iwi, but in addition, Ngati Rangi has a special interest in the Eastern diversion, particularly the diversion of the tributaries of the Whangaehu River and the headwaters of the Moawhango River.

[55] The nub of the Appellants appeal is, that the diversion of the waters, by both the Western and Eastern diversions, is culturally offensive and debilitating to the Maori people represented by the Appellants. The effect of the diversion on Tikanga Maori has both a spiritual and physical dimension. The spiritual dimension underlies the genealogical and ancestral ties of the people to their river and tributaries, from their ancestral mountains to the ocean. This includes such concepts as mana, mauri, kaitiaki and tapu. These spiritual concepts are linked to and interrelated with such physical concepts as the form and ecology of the river, which affect important cultural pursuits such as fishing. As the Waitangi Tribunal said:

The river is thus seen as a taonga – as an ancestral treasure handed down, as a living being related to the people of the place, where that relationship has been further sanctioned and sanctified by antiquity and many ancestral beings. It governed their lives, and like a tūpuna, it served both to chastise and to protect.¹⁸

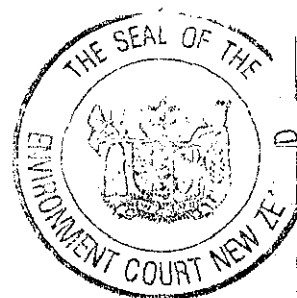
The issues

[56] The notices of appeal filed were quite wide-ranging and extensive in the grounds of appeal. The issues were narrowed a little by the notices filed in response to a direction from the Court. They have been further narrowed by a process of elimination during the course of the hearing.

[57] As stated, the nub of the case is the effect on Maori and their culture. Effects on the physical environment were raised by other appellants. These physical effects cover a wide range of matters from ecology to recreational sporting activities. The concerns raised in some of those appeals have been settled by the adoption of mitigation conditions. However, a number of matters raised by the other appellants are of concern to Maori – for example the effects on water quality and the ecology of the rivers.

[58] From a synthesis of Counsel's submissions we identify the following matters that require our consideration and determination:

¹⁸ The Whanganui River Report, page 46.



1. The legal basis for our decision;
2. The statutory instruments;
3. Consultation;
4. The effect on Maori;
5. The effect of the TPD on the national interest;
6. Should the effect on Maori (if any) be accommodated under the Act? and
7. If so – how?

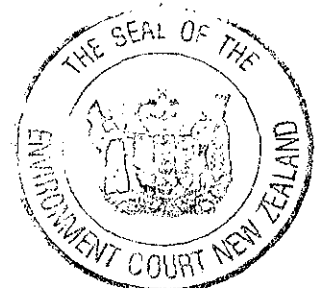
Legal basis for our decision

[59] The TPD activities require resource consents for the taking, diverting, damming and discharging of water into lakes and rivers in terms of sections 13, 14 and 15 of the Act. Sections 104, 105 and, with respect to discharges only, section 107 provides specific guidance as to the appropriate matters for consideration.

[60] The status of the activities, subject to the appeals, was discussed at some length by Mr John Kyle, a Planning Consultant called by Genesis. Their status is to be determined by the relevant statutory instruments that apply in the Manawatu-Wanganui Region. It was Mr Kyle's view, that the activities for which resource consents are required are either controlled or discretionary activities. It was agreed by all parties, that the appropriate way to deal with the consents is by bundling them together, and applying the "lowest common denominator" approach to deciding the appropriate activity classification for the entire activities. This means all consents are to be considered as discretionary activities.

[61] The relevant matters for us to consider under section 104(1) are:

- (i) Part II – section 104(1) "*subject to Part II*";
- (ii) Any actual and potential effects on the environment of allowing the activity – section 104(1)(a);
- (iii) The relevant statutory instruments.



[62] As a number of the consents are for discharge permits we are also required, in appropriate cases, when having regard to the actual and potential effects on the environment, to have regard to the matters set out in sections 104(3) and 107. However, the appellants have not taken issue with either of those sections and, indeed for this reason, no evidence was adduced in respect of them. For the purposes of this decision we say no more about them.

[63] Against that statutory background, and within the confines of the issues and the evidence presented, we have to broadly consider and determine:

- (i) First, as a matter of fact, the negative effects of the diversion on Maori;
- (ii) Secondly, as a matter of fact, the positive effects of the diversion; and
- (iii) Evaluate and weigh our findings in (i) and (ii) above, guided by the statutory instruments and the provisions of the Act, particularly Part II.

[64] The cardinal and pivotal matter for us to bear in mind in weighing and evaluating the evidence and exercising our discretion, is the Act's single purpose as set out in section 5.

5. Purpose

- (1) The purpose of this Act is to promote the sustainable management of natural and physical resources.
- (2) In this Act, "sustainable management" means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –
 - (a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
 - (b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
 - (c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.



[65] The proper application of section 5 involves an overall broad judgement of whether or not a proposal promotes the sustainable management of natural and physical resources.¹⁹ Such a judgement allows for comparison of conflicting considerations and the scale or degree of them, and their relative significance in the final outcome.²⁰

[66] In *North Shore City Council v Auckland Regional Council* the Environment Court held that where, on some issues, a proposal is found to promote one or more of the aspects of sustainable management, and on others is found not to attain, or to attain fully, one or more of the aspects described in sub-sections 5(a), (b), or (c), it would be wrong to conclude that the latter overrides the former with no judgement of scale or proportion.²¹

[67] The remaining sections in Part II, subsequent to section 5, inform and assist the purpose of the Act. We may accord such weight as we think fit to any competing considerations under Part II, bearing in mind the purpose of the Act. We agree with Mr Cowper, that these subsequent sections must not be allowed to obscure the sustainable management purpose of the Act. Rather, they should be approached as factors in the overall balancing exercise to be conducted by the Court.²²

[68] As would be expected in a development of this size, Counsel for the respective parties emphasised one or more of the various matters to be considered under sections 6 to 8 of the Act. For example, Mr Majurey, for Genesis, supported by Mr Cowper and Mr Milne, emphasised section 7(b) which concerns the efficient use and development of resources. Mr Ferguson for the appellants emphasised those matters in Part II that are of sensitivity to Maori – sections 6(e), 7(a) and 8.

[69] Where Part II matters compete amongst themselves, we must have regard to the statutory hierarchy as between sections 6, 7 and 8 as part of the balancing exercise. However, notwithstanding their importance, all of those sections are subordinate to the primary purpose of the Act. The High Court laid down this principal in *NZ Rail*, in relation to section 6(a). The Court stated:

A recognition and provision for the preservation of the natural character of the coastal environment in the words of s.6(a) is to achieve the purpose of the Act, that is to say to promote the sustainable management of natural and physical

¹⁹ *Aquamarine Limited v Southland Regional Council* 3 NZED1 (C126/97) at 141; recently endorsed in *Independent News v Manukau City Council* A103/03.

²⁰ *North Shore City Council v Auckland Regional Council* [1997], NZRMA 59 at 93; *NZ Rail Ltd v Marlborough District Council* [1994] NZRMA 70 HC at 72.

²¹ *Aquamarine Limited* at 141.

²² Cowper, opening submissions for Mighty River Power, paragraph 4.6.



resources. That means that the preservation of natural character is subordinate to the primary purpose of the promotion of sustainable management. It is not an end or an objective on its own but is accessory to the principal purpose.²³

The Court went on to state that:

It is certainly not the case that preservation of the natural character is to be achieved at all costs. The achievement which is to be promoted is sustainable management...²⁴ and questions of national importance, national value and benefit, and national needs, must all play their part in the overall consideration and decision.

[70] As Mr Cowper pointed out, the High Court recently reiterated this principle in *Auckland Volcanic Cones Society Incorporated v Transit New Zealand*.²⁵ In that case, the Court held that, while section 6 matters are to be recognised and provided for, this is in the context of achieving the purpose of the Act as is set out in section 5.

[71] The Environment Court stated in *Minister of Conservation v Western Bay of Plenty District Council*²⁶, in a passage cited with approval in *Mighty River Power v Waikato Regional Council*²⁷:

In weighing the evidence of the witnesses on all sides, we have borne constantly in mind the Act's single purpose of promoting the sustainable management of natural and physical resources. Section 6 matters, nationally important by prescription as they are, plainly need to be recognised and provided for in conjunction with the many other considerations contemplated by the legislation in the district planning process ... The sections subsequent to section 5 are designed more fully to inform and assist a body such as the Council in following through and applying Parliament's intents in achieving the Act's purpose for its district. Expressed in the reverse context, those sections are not intended to be applied as a series of competing considerations liable to undermine the achievement of the purpose laid down in section 5.

[72] We thus propose to consider the relevant evidential matters, make decisions on the facts, and then apply a balancing and weighting process to determine what best achieves the single purpose of the Act. In so doing, we are mindful of the fact that while adverse effects may involve Part II matters, it is still nonetheless proper for such effects to be mitigated, as opposed to being avoided or remedied under section 5(2)(c). As the Environment Court said in *Kemp v Queenstown Lakes District Council*²⁸:

²³ *NZ Rail Ltd v Marlborough District Council* (1994) NZRMA 70 HC at 85.

²⁴ *NZ Rail Ltd* at 86.

²⁵ [2003] 7 NZRMA 316.

²⁶ A71/01

²⁷ A146/01 at pages 20-21.

²⁸ [2000] 7 NZRMA 289 at 323



[S]ome of the possible adverse effects related to national importance can be avoided or perhaps mitigated under section 5(2)(c). For example, the effects on the significant habitat for wrybills, banded dotterel and black fronted tern is only a potential effect and may be controlled by application of a monitoring condition with a review of the resource consent if the risk of harm is shown to exist and be significant.

The statutory instruments

[73] We are to have regard to the relevant statutory instruments,²⁹ the various objectives and policies of which are subject to Part II of the Act.³⁰

The relevant planning instruments comprise:

- The Manawatu-Wanganui Regional Policy Statement – made operative on 18 August 1998;
- The Manawatu-Wanganui Regional Air Plan – made operative on 30 January 1999;
- The Manawatu-Wanganui Land and Water Regional Plan – effectively operative (no remaining relevant challenges);
- The Manawatu-Wanganui Regional Plan for the Beds of Lakes and Rivers and Associated Activities – made operative on 14 March 2001.

[74] There are a large number of objectives and policies contained in the relevant instruments, which were addressed in detail in the evidence of Mr Kyle,³¹ Planning Consultant for Genesis, and Mr Robert van Voorthuysen,³² Planning Consultant for the Council. We have regard to that evidence and to the provisions of the relevant instruments.

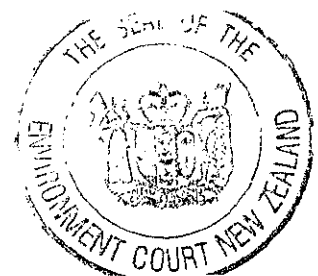
[75] The relevant instruments acknowledge the existing structures of the TPD, as being permitted activities. They contain objectives and policies which generally reflect Part II matters and which are designed to protect existing water quality and the natural character and values inherent in the rivers, lakes and wetlands and their margins, including ecological, cultural, intrinsic and amenity values.

²⁹ s104(1)(c)-(h) of the Act.

³⁰ *Kaikaiawaro Fishing Co., v the Marlborough District Council* (1999) 5 ELRNZ 417; an application by *Canterbury Regional Council; Paihia and District Citizens Association Inc., v the Northland Regional Council* 2 ELRNZ 23 (1995).

³¹ Kyle, EiC, paragraphs 10.1-10.33 and Kyle, Supplementary evidence.

³² van Voorthuysen, EiC, paragraphs 39-60 and 67-43.



[76] Mr Ferguson, on behalf of the Appellants, took no issue with the relevant statutory instruments and acknowledged during his closing, that the applications were not contrary to any of the statutory instruments³³. Nor did he, apart from Maori matters, point to any objective or policy which is not in accord with the proposals. Mr Ferguson's concession is reasonable and proper having regard to the evidence of the planning witnesses and the provisions of the relevant instruments. We therefore do not intend to address them further.

[77] Notwithstanding Mr Ferguson's concession, he quoted verbatim extensive statements in the planning documents, which reflect the relationship of iwi with their waters and rivers. In particular, he referred to provisions in the Regional Policy Statement, the Land and Water Plan and the Lakes and Rivers Plan. Those provisions reflect and elaborate on, but take no further, the provisions sensitive to Maori contained in Part II. We have regard to them when considering the evidence relating to the effects of the proposal on Maori.

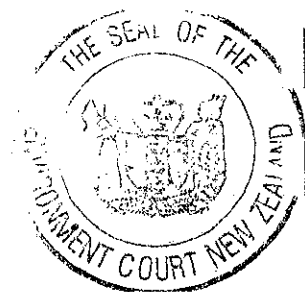
Consultation

[78] A failure to adequately consult was central to Tamahaki's appeal. While it supported the substantive issues advanced by the Whanganui iwi, it was clear from the evidence of Mr Ross Wallis, who gave evidence for Tamahaki, that Tamahaki consider that they have not, to date, had the opportunity to engage properly in the process.

[79] Neither Ngati Rangi nor the Whanganui iwi advanced a failure to adequately consult as a ground for appeal. The Whanganui iwi have been consistent in their approach – while requested by Genesis to engage in consultation they refused to go down that path unless the water is first returned to the headwaters of the Whanganui and until they have reached a settlement with the Crown in respect of their Waitangi claim.

[80] Ngati Rangi at first adopted the same stance on consultation as the Whanganui iwi – but more recently, in the last three years or so, has attempted to enter into a consultation process. This attempt never really got off the ground, due to a failure to agree on an appropriate protocol. We heard a lot of evidence about this particularly from Ms Tracey Hickman the Environmental Manager Hydro for Genesis and Ms Aneta Rawiri, a

³³ Transcript, pages 1406 and 1407.



volunteer legal researcher for Ngati Rangi Trust. We do not deem it necessary to discuss this evidence.

[81] It seems to us, from the evidence we heard, that Ngati Rangi had the perception that Genesis were not prepared to even consider a shift from a 35-year consent term. On the other hand, Genesis perceived Ngati Rangi's position as being implacable on absolute closure of the Wahianoa Aqueduct. However, it was apparent on the evidence before us, that neither was sufficiently entrenched in their position to reject the consultative process. A process, which Genesis proposed entering into by the signing of a formal consultative document called a "Memorandum of Understanding". Because of Ngati Rangi's perception of Genesis intentions, no form of protocol was signed.

[82] Both Ngati Rangi and the Whanganui iwi have taken the opportunity of presenting full and extensive evidence before us, advancing their specific concerns. Tamahaki's underlying position has been to support the evidence adduced by the Whanganui iwi. Despite the opportunity, Tamahaki has not advised us of any additional issues or concerns, nor disagreed with any of the substantive issues put forward by either Ngati Rangi or Whanganui iwi.

[83] Consultation, or the need to consult, arises from the principle of partnership which requires the Treaty partners to act reasonably and to make an informed decision. Even if the process of consultation has not adequately taken place, provided that at the end of the day, we consider we are in a position to act reasonably and make an informed decision – that is all that is required.

[84] We heard a considerable amount of evidence on the question of consultation. We do not consider it necessary to prolong this decision by referring to that evidence in detail. Both Genesis and the Council went to considerable lengths to consult with those they considered affected. However, at the end of the day we are satisfied that the process has enabled all parties, including Tamahaki, to address their concerns. Further all parties, including Tamahaki, have had every opportunity of addressing their concerns before us. In our view, consultation, or the lack of it, is not an issue.

Treaty of Waitangi claim

[85] Mr Ken Mair gave evidence for Whanganui iwi. He is a mandated negotiator for the Te Awa Tupua (Whanganui River) Negotiating Committee, that is presently engaged



in settlement negotiations with the Crown, through the office of Treaty Settlements, in relation to Te Awa Tupua (the Whanganui River).

[86] He told us of the current advanced stage of negotiations as between the Crown and Whanganui iwi with respect to their Waitangi Tribunal claim. The Whanganui iwi claim that they are entitled to the river's ownership, management and control. To them, the foreign management of their headwaters is in direct conflict with their claim - a claim that has been upheld by the Waitangi Tribunal.

[87] Mr Mahuika, in opening for the Whanganui iwi, raised the issue as to whether Treaty negotiations between the Crown and Whanganui iwi are relevant to our consideration of these consents under the Resource Management Act. However, this matter was not taken further by Mr Ferguson in his closing submissions. Mr Mair stressed in his evidence, that...*these parallel developments between the Crown and Whanganui iwi are of relevance and warrant careful consideration by the Environment Court*³⁴ ...in these proceedings. As we understand Whanganui iwi's position, they see the resolution of their claim as a must, before negotiating the terms of the resource consents with Genesis.

[88] We can understand their position. As Mr Mair pointed out, to the Whanganui iwi:

...Te Awa Tupua cannot be divided into severable rights and interests such that the diversion of waters can be considered and addressed in isolation from the overarching relationship between the Whanganui iwi and Te Awa Tupua that is the subject of settlement negotiations with the Crown. Whanganui iwi view Te Awa Tupua as a unified whole. In effect, the River cannot be separated from the people nor the people from the River. The River is an integral part of the Whanganui iwi and it provides for them physically, spiritually and culturally.³⁵

[89] Further, any settlement with Genesis may pre-empt their settlement with the Crown. From a non-legal point of view, there is a link between the Waitangi Tribunal claim and Genesis' application for resource consents. To Whanganui Maori, the link is their cultural entity and its preservation and protection.

³⁴ Mair, EiC, paragraph 21.

³⁵ Mair, EiC, paragraph 14.



[90] However, we must apply the law as it is prescribed by Statute. Under Statute the two processes are separate. It is well settled that the legal regime under the Treaty of Waitangi Act 1975 is quite distinct and separate from the regime under the Resource Management Act.³⁶

[91] In *Banks v Waikato Regional Council*³⁷, the Planning Tribunal (as it then was) stated:

Although consent authorities are directed, by section 8, to take into account the principles of the Treaty of Waitangi, that does not invest them with authority to decide whether the Crown is in breach of its obligations under the Treaty in any respect; let alone to decide what redress might be appropriate.

[92] We are circumscribed by the statutory provisions which govern us, and in particular, the single purpose of the Resource Management Act as expressed in section 5 and Part II.

The effect on Maori customary and traditional values

[93] For approximately eight hundred years the Maori people have lived on the land and by and in the rivers affected by the waters taken by both the Western and Eastern diversion. To the Maori people the severing of the headwaters of their rivers is a sacrilege resulting in a denigration of Maori values and beliefs affecting their self-esteem. It has, as Ms Rawiri said, resulted *in the devastation to the mauri³⁸ and mana of our tupuna awa, and the mana and well-being of our people.*³⁹

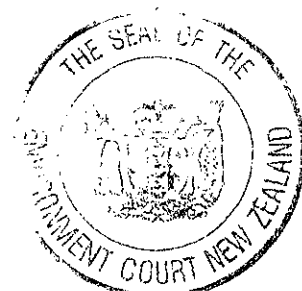
[94] To give genuine and meaningful consideration to Maori concerns, it is necessary for us to consider how Maori saw and related to the rivers in the context of their customary and cultural values. To this end, we heard evidence from a number of Maori witnesses, when we sat on the Tiorangi Marae and in the Taumarunui Hall near the Ngapuwaiwaha Marae. We have also been referred to a number of texts and Waitangi Tribunal reports. As well, much of Maori culture is reflected and expressed in art, song

³⁶ See *Director-General of Conservation and Ors v Waikato Regional Council*, A232/2002; *Electricity Corporation New Zealand Limited v Minister for the Environment*, W60/91; *Greensill v Waikato Regional Council*, W17/95; *Sea-Tow Limited v Auckland Regional Council*, NZRMA [1994] 204; *Ngati Wai Trust Board v Whangarei District Council* NZRMA [1994] 269.

³⁷ A31/95 at 13.

³⁸ Ngati Rangi spelling for the word mauri.

³⁹ Rawiri, EiC, paragraph 7.2.



and proverbs. We were able to observe, and have explained to us, carvings on tribal meeting houses at some of the Marae we were welcomed on to, and heard many waiata and proverbs, the English translation of which we were given.

[95] The evidence and experiences on our site visits made it clear to us, that in the world as conceptualised by Maori, the spiritual and physical realms are not closed off from each other, as they tend to be in the European context. We are thus mindful of the warning given by Mr Ferguson in his opening submissions for Ngati Rangi, when he said:

Unfortunately, the tendency is often to pigeonhole Maori cultural and spiritual values and treat them in isolation from other factors under the RMA. Thus, environmental effects are largely viewed from the monocular and technical perspective of Western science and doctrine (in terms of, for example, water quality, biological habitats and landscape), with Maori cultural and spiritual values sidelined for consideration in principally intangible and detached terms.⁴⁰

[96] The Maori appellants adduced evidence that described the losses to Maori occasioned by, what they alleged to be, a despoliation of the river and the denigration of their cultural values, by the diverting of the water occasioned by the foreign management of the Tongariro Power Scheme.

[97] To understand their losses it is necessary to consider how Maori saw and related to their river and how their waterways affected their lives and impacted on their culture and traditions.

The rivers

**I rere mai te awa nui
mai i te Kaahui Maunga ki Tangaroa
ko au te awa, ko te awa ko au⁴¹**

The river flows from the mountain to the sea

**I am the river
The river is me**

[98] The above aphorism is an oft-cited pepeha by many of the Whanganui River people over many years. It enhances their “ahi ka” status of continuous occupation.

⁴⁰ Opening submission for Ngati Rangi Trust, 5 November 2003, paragraph 13.

⁴¹ Awa Tupua-Whanganui Policy Statement, June 1999, page 4.



[99] We were told by a number of witnesses how the Whanganui River, the second longest in the North Island, was populated by many marae strung out along its banks. The river provided communication by its navigability; and sustenance with its eels, fish, freshwater shellfish and crayfish. For centuries it was the home of the Whanganui people – a home built around the river.

[100] The first paragraph of the executive summary of the Whanganui River Report, by the Waitangi Tribunal, gives a concise brief of the historic context regarding the river and its people.

For nearly a millennium, the Atihaunui hapu have held the Whanganui River. They were known as the river people, for uniquely amongst the rivers of New Zealand, the Whanganui River winds through a precipitous terrain that confined most of the large Atihaunui population to a narrow margin along its banks. There were, last century, some 140 pa and many large, carved houses that tell of substantial and permanent settlements. The river was central to Atihaunui lives, their source of food, their single highway, their spiritual mentor. It was the aortic artery of the Atihaunui heart. Shrouded in history and tradition, the river remains symbolic of Atihaunui identity. It is the focal point for the Atihaunui people, whether living there or away. Numerous marae still line its shores.⁴²

[101] It was the river that bound the people together. This was exemplified, by the carvings on the tribal meeting house at Ngapuwaiwaha – where we were officially welcomed by the Whanganui iwi – which depicted a rope of three strands signifying unity and illustrating a tribal saying, that the people are “a spliced rope entire from source to mouth”.

[102] Ngati Rangi also maintained a deep spiritual and cultural relationship with the Whangaehu River and with the Moawhango River. They also have lived on their banks for centuries and the rivers and their tributaries have provided sustenance. As Mr Keith Wood, an uri of Ngati Rangi said:

Whangaehu is precious to us as she derives from our tūpuna maunga, her waters originating from Te Wāi-a-Moe (Crater Lake) and the springs that rise from Ruapehu, bringing their spiritual and physical sustenance to our people. For centuries our people have practised our rituals in her sacred waters. Her water is highly mineralised and carries a distinct mix of health giving qualities. We have bathed in her waters and used her healing power to heal mauui.

Her tributaries remain an important food basket for our people. As our pāhake have explained, she is the focus of many valued iwi activities that contribute to the cultural and spiritual wellbeing, and social cohesion of our people.

⁴² Whanganui River Report, page xiii.



Our tūpuna awa Moawhango, once magnificent and awe-inspiring, her mouri has been decimated by the TPD. She was traditionally an important fishing ground and a key waterway for our people of Ngāti Rangi and Whanganui iwi when travelling to Ngāti Kahungunu to trade.⁴³

The river as ancestor

[103] The basis of Maori relationship is genealogical. Ancestral ties bind the people to each other and the people to their river. The rivers were constantly referred to in the Maori evidence as their “tūpuna awa”.

[104] This genealogical relationship is one of the foundations upon which the Maori culture is based. It is known as “whanaungatanga”. Whanaungatanga in its broadest context could be defined as the interrelationship of Maori with their ancestors, their whanau, hapu and iwi as well as the natural resources within their tribal boundaries eg mountains, rivers, streams, forests, etc. Mr Buddy Mikaere, an environmental consultant well versed in Maori studies, who gave evidence for Genesis, summarises this view quite succinctly:

For most iwi therefore, ancestors and landscape are inseparable. As an example, Ngāti Tuwharetoa speak of “their” mountain, Tongariro, as an ancestor while Waikato Tainui, as we have seen, cast the Waikato River in the same role. So it is with the Whanganui River and the Whanganui iwi.

It is apparent to me that the Whanganui River was not only the embodiment of the ancestors but because of its central role in traditional life as food source, protector, highway, it was also central to the survival of the iwi itself. It is no surprise therefore that against these historical associations, perceptions and conceptual beliefs that the Whanganui River took on a totemic status which is deeply religious in nature.⁴⁴

[105] Ms Julie Ranginui, an original member of the Whanganui River Maori Trust Board, giving evidence at Taumarunui for Whanganui iwi, described the ancestral ties as follows:

The Whanganui River people are all inter-related by whakapapa and if we go back to the whakapapa of the river then we go back to our ancestors, Tamakehu and Ruaka. From Tamakehu and Ruaka came three children – Tamaupoko (the central area where I come from), Hinengakau (the daughter and second child) who married into the top part of the river so her area comes as far down as Whakahoro and then just below Matahiwi, which is called Paparoa. From Paparoa to the mouth of the river was the third child – Tupoho.

⁴³ Wood, EiC, paragraphs 4.9-4.11.

⁴⁴ Mikaere, EiC, paragraphs 3.12 and 3.13.



So Tamaupoko, Hinengakau and Tupoho were the three children of these tūpuna and from these three children derive the people of the river. The inter-relationship is whakapapa. The river for me is like my mother and my father; it's my grandfather and grandmother; it's my tūpuna. Irrespective of the condition of the river, the little water that remains is still my tūpuna, but its wairua (spirit) is dying.⁴⁵

[106] Mr Tūrama Hawira, an uri of Ngati Rangi, giving evidence at Tirorangi Marae put it this way:

As Ngati Rangi uri, when we stand to speak, we always begin by acknowledging our ancestral mountain, our ancestral rivers and our ancestral land as the very source of who we are as a people.

As our pāhake have explained, we are defined by our ancestral mountain, our ancestral rivers and our ancestral land. They are the source of our wellbeing – spiritually, intellectually and physically. We do not separate our wellbeing from the wellbeing of our taonga tūpuna. Nor can we possess them. They do not belong to us – we belong to them.

The kōrero of our pāhake is not to be taken lightly. It expresses our sense of being – our very humanity. We jealously protect and care for our korero.⁴⁶

[107] In a statement made by the late Mr Whakataumatātanga Mareikura before he died and read to the Court by his son Mr Whetumarama Mareikura, it was said:

The Ngati Rangi people, we reach to the mountain, for the mountain has, to us, the spiritual essence of our ancestors. It was there from the beginning of time. As the people of the river, we speak of the teardrops, the teardrops of Ranginui and one of the teardrops was our river. Our river is the Whanganui River, and some people claim the Whanganui River comes out of the Tongariro Mountain. That's right, if they don't know how Tongariro got there. Before Tongariro was there, the river was there. So if we go back in history, we find that the teardrops of Ranginui were given to Ruapehu.

And so we go back to the river, and the river is the beginning, the beginning for our people from the mountain to the sea. It ties us together like the umbilical cord of the unborn child. Without that, it dies. Without that strand of life it has no meaning. The river is ultimately our mana, our tapu, our ihi, our wehi, all these things make up what the river means to us. It is our life cord, not just because its water – but because it's sacred water to us.⁴⁷

[108] The written statement of Ms Ida Taute, a Pāhake of Ngati Rangi, read by her sister Ms Ngahuia McDonnell made reference to their tupuna awa in saying:

⁴⁵ Ranginui, EiC, paragraphs 44 and 45.

⁴⁶ Hawira, EiC, paragraphs 2.1-2.3.

⁴⁷ Mareikura, EiC, paragraphs 2.7 and 2.8



Our old people felt very deeply about our tūpuna awa and our tūpuna maunga. They were and continue to be gifts from our atua, part of who we are as Ngati Rangī. They have a life force, as we do, and we share in each others sustenance.⁴⁸

In paragraph 2.4, she goes on to say:

...respecting and sustaining the whanaungatanga relationships with all the living entities around us, including our tūpuna awa and puna, and our tūpuna maunga.

Mauri

[109] A number of witnesses who gave evidence for Ngati Rangī, referred to the “*mauri*” or “*mouri*”. For example Mr Wood said:

Mouri is the essence of life. It is the vital life principle that binds together the spiritual and physical elements of all things, both creating and sustaining life. The cultural and spiritual derivations of our mouri kōrero are steeped in our ancient customary knowledge,⁴⁹ and I respectfully leave these for explanation within the customary domain.

Water holds a special place in the mouri it carries, bringing spiritual and physical well-being and vitality to all life it encounters along its journey. Our tūpuna responsibility as tāngata tiaki, is to sustain the integrity and flow of this connective life-force within all aspects of our tūpuna awa. The intangible values of our tūpuna awa are just as important to us as the tangible indicators of biophysical health that reflect a healthy mouri. Our tūpuna awa are inclusive of river beds, catchment land, habitat, fish and other biodiversity.⁵⁰

[110] The regional policy statement defines mauri as:

The essential essence of all being.⁵¹

In the body of the section at page 64 the policy statement says this:

Mauri – all things, both animate and inanimate, have been imbued with a mauri generated from within the realm of te kore. Nothing in the natural world is without this essential element – the mauri represents the interconnectedness of all things that have being. Just as human kind received the mauri from Tane, so did he inherit the mauri from Ranginui and Papatuanuku. Therefore all natural things, including human kind, share a common whakapapa (genealogy). Humans have an added responsibility to ensure that the mauri inherent natural resources are maintained. Inappropriate use of resources, for example discharge of sewage to water, impacts directly on the mauri of that waterway and therefore all factors

⁴⁸ Taute, EiC, paragraph 2.1.

⁴⁹ Wood, EiC, paragraph 2.1.

⁵⁰ Wood, EiC, paragraph 2.2.

⁵¹ Regional Policy Statement, Part 4, Te Ao Maori – He Ritenga Mo Nga Takoha O Te Tao- Ao (the Maori world – management of resources), page 49.



associated with it. The natural balance which exists amongst all things is disturbed and in many cases irreversibly damaged.

[111] It would thus appear that mauri is an extension of, or at least flows from the ancestral ties or whakapapa that link the people together and to the rivers, the land and the sky.

[112] Mr Mikaere was critical of the use of the word in the context that it was given by the witnesses of Ngati Rangi. In his opinion such a claim as made by Mr Wood in his evidence “represents a fundamental misunderstanding of the traditional concept base underpinning among other things, the institution of mauri”.⁵²

[113] He opined that the concept of water as a life-giving agent from Ranginui – “the sky father” is not a traditional one, but derives from a modern interpretation⁵³. What he meant by modern we are not quite sure. He then went on to say:

Conceptually, mauri is a very complex subject because the concept itself has been subject to enormous evolution. In traditional times the whole of the natural and cultural world and everything possessed its own essential vitality: people, crops, fish, forests, birds, land, ocean, rivers, streams and lakes, stars, and natural phenomena such as lightning, wind and rain. This universal quality, this vitality, was known as the hau.

When the activities of humans in the use of a natural resource intersected, the hau was protected by being ritually placed within a mauri, normally an object such as a stone. The hau was further protected by the ritual location of an atua, God, usually an ancestral figure, inside the mauri object as well. It was the mana of the atua that provided the mauri (and therefore the hau), with its spiritual protection.

...

The mauri objects were believed to become the “thing” they represented in a belief system so powerful that loss or damage to a mauri object could mean the mate or death of the “thing” it represented. If the mauri of a pa was lost or stolen for example it was inevitable that the pa would fall in battle.

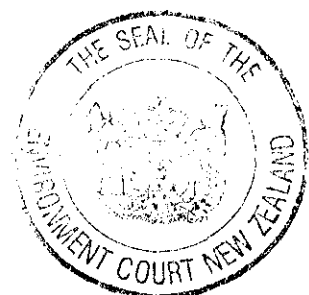
...

Because the traditional rituals associated with mauri are no longer practised there has been a recasting of mauri into its role as a “life force” present in all things and this change has added to the complexity of dealing with mauri as an issue.⁵⁴

⁵² Mikaere, EIC, paragraph 4.53.

⁵³ Mikaere, EIC, paragraph 4.54.

⁵⁴ Mikaere, EIC, paragraphs 4.57, 4.58, 4.60 and 4.64.



[114] Mr Mikaere went on to describe the Ngati Rangi position in respect of the mauri of the waterways as a reference to the “naturally” occurring metaphysical phenomenon, present in all things and which is present without interference or intervention by humans⁵⁵. He considered the mauri issue, as advanced by Ngati Rangi, could best be explained by substituting the word “health” for “mauri”.

[115] However we note the following exchange between Mr Mikaere and Commissioner Prime:

- Q. ...in your expert opinion, would you think that the absence of water in the stream, would that affect the mauri of the waterway?
- A. Well, it will be most unusual to have a stream without water being described as a stream.
- Q. Well, I guess what I am referring to is the fact that there is a stream, say the Whanganui Headwaters.
- A. Yes.
- Q. That has been closed off so no water goes so in that short area where there is no water, where the water has been diverted, do you think that the mauri in that small area would be affected?
- A. Well, if there is no water flowing through it, there is no Maori [mauri] associated with it. So it is pleasing, I think, that there is going to be a minimum flow go through that area.⁵⁶

[116] We listened carefully to the evidence of Mr Mikaere. He comes to the Court with an experienced and knowledgeable background in matters of Maori. His view would appear to cast a shadow over the evidence of Mr Wood and also the evidence of Mr Colin Richards⁵⁷ of Ngati Rangi and Mr Taiaroa⁵⁸.

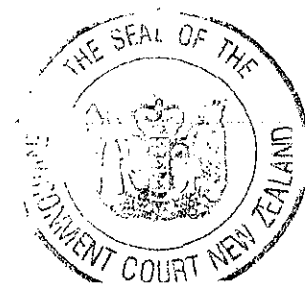
[117] At the end of the day, we doubt whether we need to make a determination on the philosophical niceties of the distinction between mauri, hau and health. Of one thing we are certain – and that is, that the customary evidence satisfied us that the people of Ngati Rangi and Whanganui iwi had, and still have, a special cultural empathy with their rivers by reason of their ancestral links. Their tūpuna awa were considered by them to be sacred in the fullest meaning of that word – they have a close physical and spiritual association to the river.

⁵⁵ Mikaere, EiC, paragraph 4.65.

⁵⁶ Transcript, pages 239 and 240.

⁵⁷ Richards, EiC, paragraph 2.16.

⁵⁸ Taiaroa, EiC, paragraph 34.



[118] We note that the Waitangi Tribunal had this to say about the mauri of the Whanganui River:

From the detailed cosmogony of the Maori, it follows further that all things have a mauri, a life force and personality of their own, and it was certainly the case that a river was seen to be so endowed.

...

Conversely, if the mauri of a river or a forest, for example, were not respected, or if people assumed to assert some dominance over it, its will its vitality and force, and its kindred people, those who depend on it, would ultimately suffer. Again, it was to be respected as though it were ones close kin.⁵⁹

[119] The Tribunal also adopted the overview from Professor James Richie in evidence before the Waitangi Tribunal on the Te Whanganui – a - Oroto claim:

Water has mauri, essential sanctity, both a wai maaori and wai tai. Water must be kept in its natural state as far as it is possible to do so. The explanations of the origin of water, its different forms, types and so on, in Maori science, emphasise that ethic.⁶⁰

Kaitiaki

[120] The kaitiaki responsibility to protect spiritually significant dimensions of the Whanganui River is an important imperative to Whanganui iwi. The fundamental principle to that imperative, is that iwi and hapu retain control. Within the Whanganui iwi, there is a clear distinction between “tangata kaitiaki” (human guardians) and the kaitiaki mentioned by Ms Anihira Henry, a kaumatua affiliated to all hapu of Hinengakau ancestress pertaining to the upper reaches of Whanganui, when she says in her evidence:

...I can do no less than affirm that all hapu of Whanganui iwi as true and rightful tangata kaitiaki a te Awa Tupua o Whanganui; the true guardians of the Whanganui River. This guardianship (kaitiakitanga) precedes the time of signing the Treaty of Waitangi on Whanganui soil in May 1840;...

The responsibilities of tangata-kaitiakitanga mo te Awa o Whanganui precede the arrival of Europeans and English to the river and on any lands of Aotearoa...⁶¹

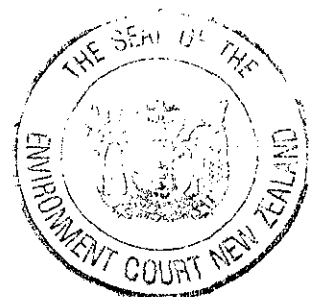
[121] In paragraph [5] she says:

Guardianship of the river's locals has always been shared process between uri (descendants living on and akin to the river) and kaitiaki (River guardians). There

⁵⁹ Whanganui River Report, page 39.

⁶⁰ Whanganui River Report, page 45.

⁶¹ Henry, EiC, paragraph 3.



are many kaitiaki of the Whanganui Awa seen by those who acknowledge the signs; and, some hidden or lost due to human influence in the changing of the river courseway.

She named three of the kaitiaki (river guardians), *Tutangatakino*, *Ngapuwaiwaha* and *Titipa*.⁶²

[122] On our site visits organised by Ngati Rangi and the Whanganui iwi, we experienced entreaties to the ancestors and kaitiaki (river guardians) of the river, in the form of karakia and karanga. On our trip down the Whanganui we stopped at a large flat rock on the upper river to lay a placatory branch. The rock is called Petipetiaurangi and underneath is the lair of Tutangatakino.

[123] With regard to the “tangata kaitiakitanga”, Ms Dardanella Metekingi had this to say:

...the Maori are the kaitiaki of the river. We have to look after this. It is what we leave for you the next generation. From what I have seen, the government, local authorities and power companies have not been doing a good job in controlling the river...⁶³

She asks the rhetorical question:

What has happened to people? The people having the power to discharge their effluent into the awa. The people have the power to reduce and divert the natural flows of the awa. These things have upset the natural balance of the river and its ability to regenerate and to purify itself.⁶⁴

And

I believe that we are the kaitiaki of the river. We want to look after it in our generation so that we can say when we go, “this is what we leave for you the next generation”...⁶⁵

[124] Mr Taiaroa assumes his peoples obligations as kaitiaki and maintains that:

...the Whanganui iwi cannot conscionably resile from their obligations as kaitiaki of the Whanganui River when the Crown – or in the present case a Crown company, Genesis Power Limited – seeks to continue actions that denigrate the river.⁶⁶

⁶² Henry, EiC, paragraph 11.

⁶³ Metekingi, EiC, paragraph 10.

⁶⁴ Metekingi, EiC, paragraph 16.

⁶⁵ Metekingi, EiC, paragraph 19.

⁶⁶ Taiaroa, EiC, paragraph 12.



[125] Mr Mareikura in paragraph 2.42 and 2.43 of his written statement says:

You know to take away my kaitiaki you might as well take away my life. I might as well give you my hand to sever from my arm because that's what you do to me.

...

The kaitiaki is, very, very important for us because he is our connection to our rights to go to the river...

[126] Examples of human kaitiakitanga are apparent in such evidence as Mr Arthur Anderson a kaumatua, kai korero and kai mahi who gave evidence for Whanganui:

...at Tawata where I was brought up, we were taught to catch for our immediate needs. And when we had got the catch we needed, we left it at that and made sure that our fish were left undisturbed...⁶⁷

Tapu

[127] The concept of tapu is interwoven into the tapestry of almost every facet of the Whanganui iwi social structure. Acknowledgement of the river kaitiaki⁶⁸ prior to, and during travel on the river involves recognition of tapu⁶⁹. Imposing of rahui⁷⁰ because of a drowning or death on the river is another example of tapu – a temporary tapu placed on an area to allow “recovery”. The action of having to build an utu piharau or a patuna without partaking of food is another⁷¹. So are the rituals of blessing children and healing the sick. Likewise will be trips to the river for cleansing of the mind⁷², spiritual sustenance, spiritual cleansing⁷³ or even the spiritual call of the river to those living away to return⁷⁴.

[128] In Ms Taute's written statement she spoke of:

Our people bathed in particular spots in the Whangaehu for her healing properties. Our parents and other whanau used to bathe us in the Whangaehu to treat hakahaki (sores) and burns...⁷⁵

⁶⁷ Anderson, EiC, paragraph 7.

⁶⁸ Henry, EiC, paragraph 10.

⁶⁹ We experienced this on our journey down the Whanganui River where karakia were said requesting the assistance of the river kaitiaki.

⁷⁰ Ranginui, EiC, paragraphs 27-30.

⁷¹ Anderson, EiC, paragraphs 26-28.

⁷² Anderson, EiC, paragraph 17.

⁷³ Potaka, EiC, paragraph 23.

⁷⁴ Potaka, EiC, paragraph 3.

⁷⁵ Taute, EiC, paragraph 2.10.



And she went on to say:

The Ringatu faith utilised the water of the streams in Karioi for healing and baptism – particularly the Tokiahuru and the Tomotomo Ariki.

As the illness inflicted on our awa from the diversion of water has crept in, so too has illness amongst our people. The diminished life force of our tupuna awa affects us as her whanaunga. This illness takes many forms affecting the physical, spiritual and cultural aspects of who we are.⁷⁶

[129] Mr Anderson gave evidence of the value of the river for spiritual cleansing. He said:

We were taught by our grandmother the need for spiritual cleansing. This was a great assistance to our spiritual wellbeing... Our grandmother would say prayers and she would take us down to the river.

When we got down there she would say prayers, she would get a stone pebble and she would draw it across our foreheads in the sign of the cross and then she would discard it back into the water. That would take away any hurt, cleanse our minds and we could feel the cleansing...⁷⁷

The mixing of the waters

[130] A number of Ngati Rangi witnesses expressed concern about the transfer of water through the Tongariro Power Scheme. Mr Mareikura, in his statement read to the Court, put it this way:

Ultimately, by diverting the water away from us, Whanganui iwi, they have severed the cord of our unity. You see – we follow the river, and once we follow the river, we carry on up to the mountain.

Now the spiritual cord has been cut because they have taken the water away from us, and that to us is sacrilege. And then to give it over and put it into another tribal area is equally bad, because the water was not meant for those people. It doesn't belong to those people, it belongs to us. We all share, but this is not sharing.

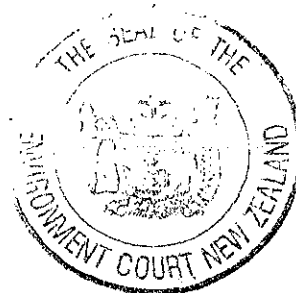
...

And so you know the spirituality of that has untold heartaches; tears have flowed. I remember the old man crying, our koro, Taitoko shedding his tears because he said that "my river has been severed, the head has been cut – what is there left for me?"⁷⁸

⁷⁶ Taute, EiC, paragraphs 2.11 and 2.12.

⁷⁷ Anderson, EiC, paragraphs 16 and 17.

⁷⁸ Mareikura, EiC, paragraph 2.13 read by his son.



[131] Mr Mikaere also took issue with this claim. He said:

...I do challenge this issue if it relies on the premise that the diversion and subsequent mixing of water from different river catchments is unacceptable on traditional cultural grounds and furthermore impinges on the asserted position of Ngati Rangi as kaitiaki for the rivers and waters in question.

Traditional Maori literature, waiata, pepeha, whakapapa, offers no information about the mixing of waters from different river systems. This is not only because of the technological limitations of traditional culture but because there was absolutely no practical or ritual reason for doing so.

...

It is clear to me that while in the modern world, some Maori might now object to the diversion of water and its subsequent mixing with other waters, that objection has no traditional or cultural base. ...⁷⁹

[132] Again, on the face of it, it would appear that Mr Mikaere's evidence is in conflict with Ngati Rangi's claim that the mixing of waters is culturally offensive, if that claim is based on traditional cultural grounds. However, it would also appear to be in conflict with the findings of the Waitangi Tribunal in other instances. Of water purity the Waitangi Tribunal had this to say:⁸⁰

Water, whether it comes in the form of rain, snow, the mists that fall upon the ground and leave the dew, or the spring that bursts from the earth, comes from the longing and loss in the separation of Rangi-o-te-ra and Papatuanuku in the primal myth. The tears that fall from the sky are the nourishment of the land itself. The life-giving water is founded upon a deep quality of sentiment that, to Maori, puts it beyond the realm of a mere useable commodity and places it on a spiritual plane.

Speaking of the mixing of waters it had this to say:

Referring back to earlier evidence in the Manukau claim in 1984, Professor Ritchie described the difficulties created for Maori when modern works mix water regimes. In this case, we are concerned with the transfer of Whanganui River water to Lake Taupo and the Waikato River through the Tongariro Power Scheme. If not mediated in an appropriate Maori way, this is spiritually offensive to Maori people, as the Tribunal in the Manukau claim was to find. It also violated the political harmony between the people of different places, disturbed the exercise of their rangatiratanga over their traditional resources, and affected conservation practices and the productivity of the resources in question.⁸¹

⁷⁹ Mikaere, EIC, paragraphs 4.34, 4.35 and 4.41.

⁸⁰ Whanganui River Report, page 44.

⁸¹ Whanganui River Report, page 45.



[133] We do of course have a great deal of respect for what the Waitangi Tribunal finds in its determination on Maori customary usage. It would appear from reading their report that it received a much greater amount of evidence on Tikanga Maori issues than we received during the course of this hearing. It would be, in our view, inappropriate for us to hold that the Tribunal had erred on a matter of Tikanga Maori unless there was clear additional evidence before us that clearly showed the Tribunal was wrong. However, again it is not really necessary to resolve the apparent conflict as we are satisfied of the spiritual and cultural significance of the rivers both to Ngati Rangi and to the Whanganui iwi. We also note the findings of the Waitangi Tribunal that:

The spiritual and cultural significance of a river can only be determined by the tangata whenua who have traditional rights over the river. It cannot be assessed in any other way.⁸²

Physical changes to the rivers

[134] The Maori appellants claimed, that the diversion of the waters from their rivers has adversely affected their cultural traditions in a number of ways, including: a change to the hydrology of the rivers by reduced flow and water levels; an effect on water quality; an increase in siltation; and a change to the ecological system affecting the food chain. All of these factors have, they say, inhibited their cultural practices, reduced the numbers of native fish dramatically, and affected their fishing practices.

[135] Genesis maintained that if there was any physical effect on the river impacting on cultural traditions, then any such effect was not caused by the Tongariro Power Development. It was caused by other factors unconnected with the diversion of the waters. We heard extensive and detailed evidence relating to both the eastern and western diversion from a range of expert witnesses called by Genesis. They addressed such matters as hydrology, siltation, river flows, river levels and ecology.

[136] As the eastern and western diversions are independent and in different catchments we look at the effects, if any, of their diversion on the rivers separately.

⁸² Waitangi Tribunal (1989), Report of the Waitangi Tribunal on Kaituna River claim (Wai 4), 2nd ED Department of Justice, Wellington, page 41.



The western diversion

Customary evidence

[137] We heard evidence from eight witnesses called by the Whanganui iwi. All were stressed by the change they see in the Whanganui River, which, for the most part, they claimed to be the result of reduction in flow and lowered water levels caused by the diversion of water through the Tongariro Power Development structures. They emphasised how their cultural and religious practices have been profoundly affected by the deterioration in the state of the river.

[138] Ms Ranginui gave evidence about how the TPD had ...*changed the whole flow of the water...*⁸³ and the level of the water in the river, leaving channels and affecting rapids and shallows. This has had an effect on traditional fishing practices for eel, smelt and white bait, which are no longer being caught in the numbers and the way they used to be caught right up until 1970. She said, that where you could catch the smelt and white bait was where the rapids are, and where the rapids are, is where the shallow water is – half water.⁸⁴

[139] She told us, that another effect caused by the lowering of water levels, has been the effect on sacred areas *Nga Puna Mo Nga Tika*, including: the drying out and loss of a baptising pool at Matahiwi (below Pipiriki); the loss of ...*wash back...* places where women would give birth to a child; and areas where Maori would bless the ones who had been sick⁸⁵. Ms Ranginui also gave evidence of how she noticed the changes in the river after the TPD came into operation, in particular the loss of five Piharau Utu, including the main one at Nga Poutama⁸⁶. She also described the relationship of her ancestors and whakapapa with the river, and was of the view that the wairua (spirit) of the river could revive if the water was given back to the river.⁸⁷

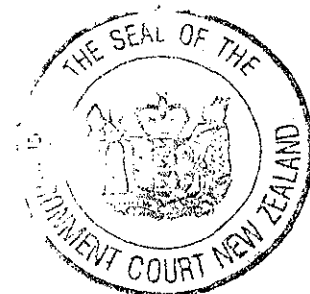
⁸³ Ranginui, EiC, paragraph 12.

⁸⁴ Ranginui, EiC, paragraph 8.

⁸⁵ Ranginui, EiC, paragraphs 44-46.

⁸⁶ Ranginui, EiC, paragraphs 39 and 40.

⁸⁷ Ranginui, EiC, paragraphs 14-21.



[140] Ms Dardanella Metekingi described her experiences of playing in the river as a child and of her mother's relationship with the river, especially if any of her family was sick⁸⁸. She was of the view, that there had been a deterioration in the river and its spirit was dying. She considered the state of the water quality of the river, particularly the pollution, silt and sediment in the upper reaches around Taumarunui, to be appalling and a betrayal by the Government, Local Authorities and Power Companies. She maintained there is less bird life, particularly less shags and less fish too.⁸⁹

[141] In the lower reaches, she said that the rains and tides don't clean the river any more⁹⁰. She believed that control of the river should be shared, but in a respectful and supportive way and not just be used commercially.⁹¹

[142] Mr Hemi Takarangi gave evidence describing his early experiences as a child learning to swim, and of his reverence for the river near Putiki Marae which is upstream from the mouth of the river. He said, that the part of the river to which he was first introduced, is now mud flats and the water bears heavy residues of silt, pollutants and industrial effluent that are no longer washed away due to the reduced water level in the river. Silt now covers pupu (shellfish) beds and the pipi beds that used to be just outside Putiki Marae⁹². He also said that he could remember, just before the Second World War, seeing white bait, herrings and kahawai in the river, but they are not seen today.⁹³

[143] He said, that the controlled flows of the TPD scheme are detrimental to the banks of the river because the normal flow can be seen by the rows of holes on both banks of the river. He considered, that the access by all their fish from the sea to the upper reaches has been affected by the reduced flow. He said that the iwi, hapu and whanau of the Whanganui River are grieving and will share the fate of the river unless the natural water flow of old is returned.⁹⁴

[144] Mr Michael Potaka, of Whanganui said, that he has lived with the river for all his life and from time to time had observed changes in the river which he attributed to a variety of causes including; run-off from land clearances, pollution of one kind or another

⁸⁸ Metekingi, EiC, paragraphs 2, 3 and 5.

⁸⁹ Metekingi, EiC, paragraphs 8-10.

⁹⁰ Metekingi, EiC, paragraph 12.

⁹¹ Metekingi, EiC, paragraph 21.

⁹² Takarangi, EiC, paragraph 11.

⁹³ Takarangi, EiC, paragraph 9.

⁹⁴ Takarangi, EiC, paragraphs 15 and 23.



and the diversion of the headwaters. His evidence focused on the lower reaches of the river from Raorakia to Ruapirau just south of Matahiwi, the length of river with which he has had a close familiarity since his birth.⁹⁵

[145] He said, that Maori people used to rely upon a number of species of fish from the river which became available at different times of the year⁹⁶. Ngaore (smelt) and karohi (white bait) were traditionally caught in a race called a piharau utu or pa on the edge of the shingle bed. He described in detail how this was done⁹⁷. During the years up to the 1970s, he and his family would expect to catch ngaore and karohi in pa located at: Pungarehu, Huiarere, Parikino, Whakahua Whaka, Upokopoiti, Atene and Koriniti. He said that before the 1970s, fishing in this river had been affected by the taking of metal from the shingle beds, but this had been replenished from upstream and the pa sites returned to usable form reasonably quickly. However, since the headwaters were diverted by the electricity scheme there has been insufficient shingle brought down to rebuild the beds into their original state. As a result the pa sites have in many cases simply become unusable and their catches of ngaore and karohi have been greatly reduced.⁹⁸

[146] Mr Potaka also said he was particularly familiar with the kakahi (freshwater mussel) beds at Parikino and Paetawa, which were in both the eastern side (a large number of shorter beds) and the western side (100 metres long and some 18 inches wide) of the river. Before the diversion, the beds were covered in 6 inches to a foot of water and the shellfish flourished. Afterwards the beds have become exposed and dried out and the kakahi have dried out and died⁹⁹. He also said, that koura (freshwater crayfish) used to be in the river and the side creeks but now the creeks are dry, and with the riverbed low the food is no longer available. He said, that while the situation has not been aided by the removal of trees and other ground cover, he believed that the shallowness of the awa since the diversion has also had an effect.¹⁰⁰

[147] Mr Potaka also said, that tuna (eel) are still caught in parts of the awa, although in far fewer quantities than previously. He considered there had been some increase in catches of ngaore, karohi and also mullet since changes in pollution control at

⁹⁵ Potaka, EiC, paragraphs 6 and 7.

⁹⁶ Potaka, EiC, paragraph 8 onwards.

⁹⁷ Potaka, EiC, paragraph 11.

⁹⁸ Potaka, EiC, paragraphs 12-14.

⁹⁹ Potaka, EiC, paragraphs 15 and 16.

¹⁰⁰ Potaka, EiC, paragraph 17.



Taumarunui and Wanganui. The numbers certainly increase when the water flows are higher. However, the quantity of fish is nowhere near its former level.¹⁰¹

[148] He also spoke about the spiritual importance of the river to the Maori communities along the river and said that his concerns about fisheries are simply one manifestation of his greater concern about the health of the river. He said that his people see the cutting of the headwaters as a particularly grave attack upon the river, contrary to the laws of nature which they observe, and an attack upon their role as kaitiaki.¹⁰²

[149] Mr Potaka's evidence was supported by Mr Titapu Henare, a local fisherman, and Mrs Anihira Henry, one of the oldest kaumatua of the hapu of Whanganui iwi. Mr Henare described traditional fishing practices for catching: piharau (lamprey), tuna (eels) including tunaheke, tunapa and tunatoke; kakahi (freshwater mussels), and inanga (whitebait), and of how the decline in the fisheries have been caused by the change in flow.¹⁰³

[150] Mr Anderson, described his association with the river since his birth at Tawata, where his family lived and caught tuna heke and kakahi; the latter from the Whakapapa, Ohura and Kakahi Streams. He said that today the papa and rocks which used to be the home of the eel are all exposed. This does not lend itself to the habitat in which food could be sought by the eel.¹⁰⁴

[151] He also described how his grandmother taught him the use of the river for spiritual cleansing and how over time he was able to gain value from it. He also described his experiences assisting his uncle to construct the Piharau Utu at Maraekowhai (below the confluence with the Ohura River).¹⁰⁵

[152] On behalf of the Whanganui River Maori Trust Board appellants, Mr Archie Taiaroa stated:

The mauri of the river, its life force, has been greatly trampled on by the abstraction of what are enormous quantities of water from its body. These effects are made worse by the fact that the waters come from the snow covered peaks and provide the freshest and clearest water to the river. The crucial impact is of the abstractions at times of lower flow when the river naturally has

¹⁰¹ Potaka, EiC, paragraph 18.

¹⁰² Potaka, EiC, paragraph 21.

¹⁰³ Henare, EiC, paragraphs 3-24.

¹⁰⁴ Anderson, EiC, paragraphs 4, 8, 9 and 13.

¹⁰⁵ Anderson, EiC, paragraphs 16-23.



less water, and the effect of the taking of water from the body of the river is so much greater...

The effect of this in the view of Whanganui iwi is a gross weakening of the strength of our awa (river).

...

Also important are the river "freshes", or flow increases short of occasional major floods, which have been greatly reduced by the TPD. These flow variations are well known to our tupuna, and occurred right up to the time of the diversions.¹⁰⁶

[153] With respect to fisheries Mr Taiaroa stated:

Whanganui iwi's traditional fish tuna, piharau, ngaore, inanga, kakahi and all the other species with which the river abounded are very important to us but have been substantially destroyed. This includes our fishing methods used for harvest – pa tuna, and piharau utu. These have suffered from a succession of impacts from the excessive destruction of pa tuna, the discharge of sewage into the river at top and bottom, the run-off of pollutants from cleared land and more recently the serious reduction and interference with the river flows. Eel and other species are in short supply for these reasons. There is rarely sufficient to meet iwi traditional and customary requirements.¹⁰⁷

...

There is some commercial eeling carried out by non-Maori in the river and at the present time. The fishery cannot support our traditional uses, and commercial eeling as well. We perceive the whole river as our traditional fishery – there is no fishable part of it which has not been used for that purpose in the past, and there is insufficient in the river in any event to support any other significant use.¹⁰⁸

[154] Both the people of Whanganui iwi and Ngati Rangi relied traditionally on the rivers for sustenance. Fishing still plays an important role in their hospitality¹⁰⁹. Manaaki tangata (hosting visitors appropriately), is a key value and plays an important role in uplifting their peoples mana¹¹⁰.

[155] All of the Maori witnesses lamented the effect the river has had on their cultural practices, the depletion of native fish and traditional fishing methods. From their evidence, we have identified a number of physical factors they assert are caused by the TPD that, they say, have had an impact. These are:

- (i) The reduction of flow and the lower water levels;

¹⁰⁶ Taiaroa, EiC, paragraphs 34-36.

¹⁰⁷ Taiaroa, EiC, paragraph 60.

¹⁰⁸ Taiaroa, EiC, paragraph 6.2

¹⁰⁹ Richards, EiC, paragraph 2.18.

¹¹⁰ Taute, EiC, paragraphs 2.8 and 2.9.



- (ii) The effect of reduced flow on water quality;
- (iii) The effect of reduced flow on sedimentation, erosion and the morphology of the river; and
- (iv) The effect of reduced flow on the ecological life of the river – invertebrates and fish.

Genesis evidence

[156] In response, Genesis called a number of expert witnesses to address the factors identified by the Maori witnesses. Their evidence was peer reviewed by Dr Brent Cowie, a freshwater biologist called by the Council, who gave an overview of both the Western and Eastern Diversions. The Genesis witnesses also identified other land uses, which they identify as factors that affect the distribution and abundance of fish species in the freshwater environs.

We will now deal with each of these matters in turn.

(i) Amount of reduced flow and lower water levels

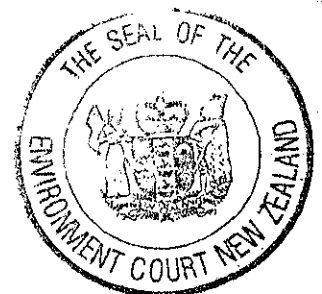
[157] Mr Jarrod Bowler, an Environmental Co-ordinator/Hydrologist for Genesis since September 1999, gave evidence on the hydrology of the TPD and the derivation of natural flow records and modelled flow regimes. He described the computer model, which was developed by Mr R D Henderson of NIWA to cover the hydrology of the major components of the TPD¹¹¹. Mr Henderson's evidence to the Joint Hearing Committee, which described the modelling process and conclusions, was appended to the evidence of Dr Cowie who appeared for the respondent.¹¹²

[158] Essentially a "natural flow regime" was simulated by the model which represented a flow regime that would have occurred if there had not been any hydro power development on the rivers. The record is in part synthetic, in that where water is diverted, natural flows have had to be computed generally by adding measured diversion flows to measured river flows downstream of diversion structures.¹¹³

¹¹¹ EiC, paragraphs 4.3 and 4.7.

¹¹² Dr Cowie, EiC, attachment R D Henderson (2000), Evidence to Joint Hearing Committee.

¹¹³ Bowler, EiC, paragraphs 4.3 and 4.4.



[159] Other more complicated procedures were used where downstream flow records were too short or where site specific information was not available¹¹⁴. In this way a continuous natural flow series was constructed for a 42 year period from 1960 to 2002 and updated to June 2003¹¹⁵. This allowed the effects of the TPD scheme to be modelled as if the scheme had existed with the current rules for diversion for the full length of the records.

[160] The modelling assumed that the scheme will always operate to capacity and all available water will be used to generate power, even though this is not the case. In reality not all available water can be used, as such factors as generation demand, power scheme maintenance, volcanic eruptions, the peaky nature of flood hydrographs, and the difficulty in efficiently maintaining minimum flow requirements means that not all available water is used all the time.¹¹⁶

[161] Thus the modelled regimes may, at certain times, under-estimate the amount of residual flow in rivers downstream of diversion structures and over-estimate the amount of water taken for hydro power generation. But it was considered, by Mr Bowler, that the relative differences between the modelled regimes will be realistic and accurate.¹¹⁷

[162] In the Western Diversion, Mr Bowler said that the effects of the TPD diversions become less apparent with distance travelled downstream as a result of tributary inflows. The effect of the diversions on downstream flows are most significant at low to mean flows and have only a minor effect on flood flows. According to Mr Bowler, the flow reduction at mean flow, downstream of the Whakapapa Intake, is approximately 67% from the natural flow regime of 15.4 cumecs to the post 2001 regime of 5.1 cumecs; reducing to 38% (from 44.6 – 27.6 cumecs) by Piriaka, 19% (from 90.8 – 73.8 cumecs) by Te Maire and 7% (from 228.1 – 211.0 cumecs) by Paetawa. The corresponding reductions in water levels at mean flow are 183 mm at Piriaka, 145 mm at Te Maire and 96 mm at Paetawa. The above reductions in mean flows and water levels, due to the TPD diversions, are based on modelled data, consequent on the 2001 resource consents.

[163] Mr Bowler addressed the concerns of Maori arising out of the reduced water level of the Whanganui River. He referred to his figures JB1, JB2 and JB3 attached to his rebuttal evidence, to illustrate the relative changes in level with the natural flow and the

¹¹⁴ Bowler, EiC, paragraph 4.4.

¹¹⁵ Transcript, page 268.

¹¹⁶ Bowler, EiC, paragraph 4.7.

¹¹⁷ Bowler, EiC, paragraph 4.7.



base case regime (ie flows as per the 2001 resource consent decisions) at low, mean and high flows, respectively. In his view, the cross section of plots clearly show that any decrease in water level from the natural flow regime to the base case regime, is very small in relation to the river volume. He pointed out, that at low and mean flow, the change would be barely discernible in the Whanganui River at Piriaka and downstream, and only discernible in the Whakapapa River in those flatter sections of the river, where velocities are lower (such as the site at the footbridge). At flood flows he said, the difference is so negligible that it would be difficult to tell whether the water was being diverted out of the river or not¹¹⁸.

[164] Mr Bowler also responded to Mr Henare's evidence that related to the effect of erratic flows. His response was, that such variations in flow, could be attributable to the operations of the power station at Piriaka. However, this effect becomes less apparent with distance downstream, as the flow attenuates as shown by the Te Maire flow trace¹¹⁹.

[165] The erratic flows that Mr Henare was concerned about, related to four piharau weirs located at Pipiriki and two others downstream, at Matahiwi and Upokopoto¹²⁰, which are all localities well downstream of Te Maire. It is therefore unlikely that such erratic flows could be attributed solely to the power station at Piriaka. Mr Bowler did not specifically address the effects of flow at the locations mentioned by Mr Henare.

[166] In response to Mr Taiaroa, who stressed the importance of the freshes, which he considered had been greatly reduced by the TPD, Mr Bowler said, that significant amount of flow variability has been introduced by tributary inflow particularly from Te Maire onwards¹²¹. However, we understand that Mr Taiaroa was not concerned with the frequency of flow variability of naturally occurring flows as such; his concern was that the magnitude of the flow variability (ie freshes, or flow increases at less than major floods) have been greatly reduced by the TPD.

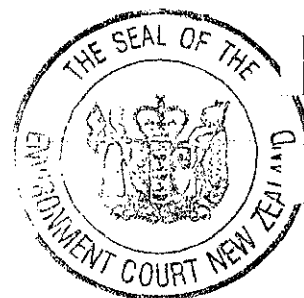
[167] Dr Graeme Smart, an engineering consultant and a senior scientist at NIWA, was called by Genesis. He provided information on water depths and flows in the lower Whanganui River, based on "the most common daily flow" and "the most commonly diverted daily flow" of 14 cumecs. He said, that the most common daily flow at Te Maire of 30 cumecs corresponds to a water depth of around 700 mm and without the 14

¹¹⁸ Bowler, rebuttal, paragraphs 3.7 and 3.8.

¹¹⁹ Bowler, rebuttal, paragraph 3.14 and JB4.

¹²⁰ Henare, EiC, paragraph 7.

¹²¹ Bowler, rebuttal, paragraph 3.19.



cumecs TPD diversion, the water depth would be 170 mm deeper. This is equivalent to a 19.5% reduction in depth at this point in the river. At Paetawa, the most common daily flow is 53 cumecs which corresponds to a water depth of around 1,100mm and without the 14 cumecs TPD diversion the water would be 140 mm deeper¹²².

[168] We note the distinction between Mr Bowler's "modelled mean flow" and "the most common daily flow", presented by Dr Smart; ie 73.8 and 30 cumecs respectively at Te Maire and 211 and 53 cumecs respectively at Paetawa. We also note their differences in the reductions in water depth, consequent on the TPD diversions, ie 145 and 170 mm at Te Maire and 96 and 140 mm at Paetawa, for the mean flow and the most common daily flow respectively. We heard no evidence to explain the different terms for different flows and levels, which we attribute to different interpretations and/or extrapolations of the flow data.

[169] Mr Bowler's evidence on the reduction in water levels, based on modelled mean flow, and Dr Smart's evidence on the reduction in water levels (ie a 19.5% reduction in water level at Te Maire and 11% reduction in water level at Paetawa), at "the most common daily flow", clearly shows that changes in water levels result from the TPD diversions. The issue is – whether the reduction in flow has an adverse effect on Maori cultural issues.

[170] Mr Bowler and Dr Smart did not consider the change in water levels to be significant. As we have said, Mr Bowler told us, that any reduction in water level is very small in relation to the volume. At low and mean flows it is barely discernible. However, to those living on the river it was, and is, discernible. Mr Potaka was concerned at a drop in water level of 6 inches (approximately 150 mm) and the effect it had on the kakahi beds at Parikino and Paetawa - a level closely akin to Dr Smart's 140 mm reduction in level at Paetawa based on the "common daily flow".

[171] We find that the reduction in flow and water level, resulting from the diversion, at times when the water level at Te Maire is 29 cumecs or above, does have an effect as described by the Maori witnesses. We note that the "common daily flow" of 30 cumecs, as described by Dr Smart, equates with the minimum flow of 29 cumecs. We appreciate

¹²² Dr Smart, rebuttal, paragraphs 34-36.



that once the flow falls below 29 cumecs at Te Maire the TPD, technically at least, has no effect on flows and levels.

[172] The evidence of Dr Smart and Mr Bowler does not satisfy us that it is reasonable to infer, from their data and modelled results, that the lowering of the water levels is insignificant. This is particularly so, when we have regard to the evidence of those who live and work on the river.

[173] The inferences drawn by Dr Smart and Mr Bowler were never empirically tested at the particular locations referred to in the customary evidence.

(ii) Water quality

[174] Mr Paul Kennedy, a Biologist with Kingett Mitchell, was also called by Genesis. He presented a detailed brief of evidence to the Court, covering the waterways of both the Western and Eastern Diversions. He gave a very full bioassessment of the waters of the Whanganui River, selecting as a reference point a site at Te Maire since most of the significant changes in water quality occur downstream of this point.

[175] The Whanganui River catchment covers approximately 7,000km²¹²³. Lahars and volcanic activity can have a significant effect on the natural resources and water quality of the river and its tributaries,¹²⁴ though present day activities on the catchment are considered to have an even greater effect. Over 500 resource consents are currently active within the catchment. These include sewage and trade water discharges, domestic septic tanks, dairy shed, industrial and domestic waste water and landfill leachates. Land use is predominantly primary pastoral and indigenous forest.

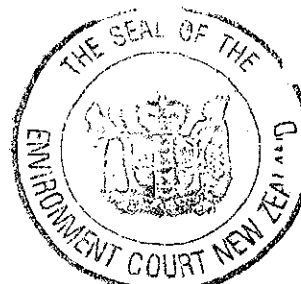
[176] It is unnecessary for us to review fully each of the parameters described by Mr Kennedy relating to the quality of the water in the river, though some details are worth reiterating:

(a) pH

- Information is available from 914 measurements of pH over the years. There is no systemic lowering of pH, in the main stem of the Whanganui River, that

¹²³ Kennedy, EiC, paragraph 3.1.

¹²⁴ Kennedy, EiC, paragraph 3.11.



might arise from any geothermal or volcanic activity in the catchment¹²⁵. However, some tributaries are subject to infrequent lahars and will have very acidic pH at times¹²⁶. All sites in the main body of the Whanganui River are within the range of pH6 – 9, considered suitable for domestic water supply and maintaining aquatic life¹²⁷. According to Mr Kennedy, there is no activity of the TPD that could adversely effect the pH of the Whanganui River system.¹²⁸

(b) **Temperature**

- The temperature lethal to fresh water fish is between 28 & 39⁰C, and this level is, at no time, reached in the catchment, except in the presence of volcanic activity¹²⁹. Mr Kennedy told us that the abstraction of water by the TPD can have no effect on temperature.

(c) **Dissolved Oxygen**

- The TPD does not alter the load of material transported by the tributaries that the intakes are located on. Direct addition of organic matter from other sources is likely to have a more significant effect in their demand on the oxygen supply of the water¹³⁰. Abstraction does, however, result in some of the ability of the river to “dilute” or “assimilate” any of the discharges or activities that could result in depressed dissolved oxygen concentration below Te Maire. This indirect influence is rapidly reduced as the river flow increases downstream.¹³¹

(d) **Clarity**

- Turbidity is an important factor that can adversely influence the wellbeing of fresh water fish. Feeding ability is a good measure of any fish’s ability to survive and feeding rates for all fish are reduced by increased turbidity.¹³²

¹²⁵ Kennedy, EiC, paragraph 7.8.

¹²⁶ Kennedy, EiC, paragraph 7.9.

¹²⁷ Kennedy, EiC, paragraph 7.11.

¹²⁸ Kennedy, EiC, paragraph 7.12.

¹²⁹ Kennedy, EiC, paragraph 7.17.

¹³⁰ Kennedy, EiC, paragraph 7.20.

¹³¹ Kennedy, EiC, paragraphs 7.23 and 7.25.

¹³² Kennedy, EiC, paragraph 7.34.



- Clarity is a criterion that has been regularly measured in the Whanganui River and its tributaries. The upper reaches have good clarity as a result of drainage from the volcanic catchments¹³³. The key change occurs in the reach from Taumarunui to Ohura, over which stretch there is a marked reduction in clarity, due to the inflow from the Ongarue River, the Hikumutu and Te Maire streams and the Ohura River¹³⁴. The Ongarue River alone brings over one hundred thousand tonnes of fine sediment to the Whanganui River each year. Clarity remains fairly constant through the Whanganui National Park and then declines further in the lower reaches and estuarine section of the river.¹³⁵
- The gradual decline is brought about by differences in the geology within the catchment, and the land use changes¹³⁶. Those catchments, dominated by a base of grey papa mudstone¹³⁷, produce significant amounts of fine material that degrade the water clarity. The concentration of suspended solids increases with the amount of bush cover converted to pastoral land use, and as this is predominantly in the more erodible mudstone catchments, it tends to reinforce the relationship between pastoral activity and water clarity.¹³⁸
- Although the TPD diversion has no direct effects on turbidity, the lack of the “dilution factor” below the intakes results in a small change in clarity down to Te Maire. Below this point other factors take over as the more important causes of turbidity increase.¹³⁹

(e) **Microbiology**

- Although birds and wild animals will contribute bacteria to waterways, grazing animals and also human waste water are the principal contributors to bacterial numbers measured in the Whanganui River and its tributaries.¹⁴⁰

¹³³ Kennedy, EiC, paragraph 7.30.

¹³⁴ Kennedy, EiC, paragraph 7.29.

¹³⁵ Kennedy, EiC, paragraph 7.29.

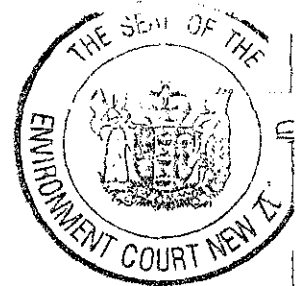
¹³⁶ Kennedy, EiC, paragraph 7.33.

¹³⁷ Smart, rebuttal, paragraph 6.

¹³⁸ Kennedy, EiC, paragraph 7.33.

¹³⁹ Kennedy, EiC, paragraph 7.35.

¹⁴⁰ Kennedy, EiC, paragraph 7.36.



- The microbiological water quality in the freshwater reaches of the Whanganui River is generally poor. The presence of significant amounts of pastoral activity in the catchment, along with other discharges and activities, contribute to the poor water quality¹⁴¹. The abstraction of water results in some reduction in dilution or assimilative capacity in the upper sections of the river. This possible effect does not extend far down the river and by the time major inflows of the Ongarue and the Ohura are reached any influence would, in the opinion of Mr Kennedy, be undetectable.¹⁴²

(f) **Phosphorus**

- The measured concentration of “dissolved reactive phosphorus” in the Whanganui River is a reflection of natural phosphorus inputs from the volcanic geology in the Ruapehu catchments, inputs from pastoral lands and discharges. Opposed to this input is the seasonal uptake by plants and algae¹⁴³. The TPD actually removes dissolved reactive phosphorus from the Whanganui River and is, in no way, responsible for any increase in the main stem of the river¹⁴⁴. The same argument holds true for the concentration of chlorides, sulphates and nitrogen in the river

(g) **Nitrogen**

- Concentrations are typically only elevated by the addition of wastewaters (including sewage) and agricultural runoff in the form of animal wastes and fertilisers¹⁴⁵. This is, to a limited extent, balanced by the uptake from plants and other processes. As it progresses downstream the increasing contamination of the water results in a marked increase. This is exaggerated by the poor water clarity which tends to reduce uptake of dissolved inorganic nitrogen by plants and algae.¹⁴⁶

¹⁴¹ Kennedy, EiC, paragraph 7.41.

¹⁴² Kennedy, EiC, paragraph 7.42.

¹⁴³ Kennedy, EiC, paragraph 7.44.

¹⁴⁴ Kennedy, EiC, paragraph 7.46.

¹⁴⁵ Kennedy, EiC, paragraph 7.47.

¹⁴⁶ Kennedy, EiC, paragraphs 7.52 and 7.53.



[177] The readings of all the above parameters, relating to water quality, were taken in 1989 when the diversion was not operating, and again when it was. There was no significant difference in the various readings, and in all cases the concentrations were low compared with other New Zealand waterways.

[178] In Summary Mr Kennedy had this to say about the quality of water in the Whanganui River:

It is my opinion that the diversion of water from the Whanganui River does not result in adverse effects on the water quality of the Whanganui River. When the abstraction is considered in the context of additions of substances elsewhere in the river system....the lower flows in the upper reaches do not result in adverse effects in the reaches below Te Maire.¹⁴⁷

[179] We find, that the TPD, situated as it is, in the headwaters of the Whanganui and its tributaries, syphons off clear water with low levels of microbial contaminants. There is, at times other than low flow, a reduction in the dilution effect of tributary inflows such as the Ohura River, which are often characterised by high levels of suspended solids and elevated levels of microbial contaminants.

[180] This adverse effect on dilution is insignificant in comparison to the adverse effects of land use in the catchment on water quality. We agree with Dr Cowie when he said:

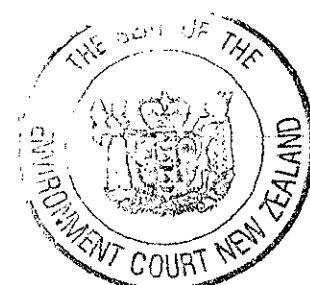
These very minor effects of the TPD are insignificant however in comparison to the adverse effects of land use in the catchment on water quality in the Whanganui River. These effects are demonstrated particularly by Tables 10 (suspended solids) and 11 (turbidity) in the evidence of Mr Kennedy, and the photograph at Figure 13 of his evidence showing a mixture of the Whanganui and Ohura Rivers. Other tributaries such as the Hikumutu and Te Maire Streams also carry sediment loads, with adverse effects on the Whanganui River itself. This is further demonstrated in the attached Figure 4 from the report by Mr Phillips which shows trends in water quality down the catchment. Note particularly the decline in clarity that occurs below confluence with Ohura River.¹⁴⁸

(iii) **Morphological changes**

[181] A number of the witnesses referred to changes in the river's morphology (the form of the river or the way in which the river shapes the land and is itself shaped by the

¹⁴⁷ Kennedy, EiC, paragraph 7.59.

¹⁴⁸ Dr Cowie, EiC, paragraph 33.



total sediment load it moves). They alleged that this is due, at least in part, to the diversion of the waters by the TPD.

[182] A number of morphological changes were referred to in the customary evidence, including:

- (i) changes to the river's channels,¹⁴⁹ and erosion of the banks,¹⁵⁰
- (ii) increase in sediment;¹⁵¹ and
- (iii) reduction of shingle deposits.¹⁵²

[183] Dr Smart addressed these changes to the river's morphology in both his evidence in chief and rebuttal evidence. He explained how the river is dynamic in nature. He said that while these changes are particularly dramatic, there are changes going on all the time as the river erodes the landscape and carries sediments to the sea¹⁵³. He gave as an example a former loop in the river near Atene Pa, where over many years the river eroded the banks at the neck of the loop, so that the river took a short cut that cut off the loop.¹⁵⁴

[184] Dr Smart explained, that changes, particularly significant changes, are caused by significant floods¹⁵⁵. A long period with no moderate or large floods will result in a relatively stable channel, whereas frequent floods will increase sediment transport and channel instability.¹⁵⁶

[185] We were told, that during the initial 22-year period following the 1971 commissioning of the Western Diversion, there were only two significant floods (ie greater than a 5-year return period). However, in the 7 years, since 1993, there have been at least 8 significant floods, including a 100-year flood in 1998. These are likely to have caused significant changes to the Whanganui River morphology during this period¹⁵⁷. Dr Smart presented to us the mean annual flood statistics for the Whanganui River¹⁵⁸. Those

¹⁴⁹ For example Ranginui, EiC, paragraph 12.

¹⁵⁰ Takarangi, EiC, paragraph 15.

¹⁵¹ Metekingi, EiC, paragraph 4.

¹⁵² Potaka, EiC, paragraph 14.

¹⁵³ Smart, rebuttal, paragraph 5.

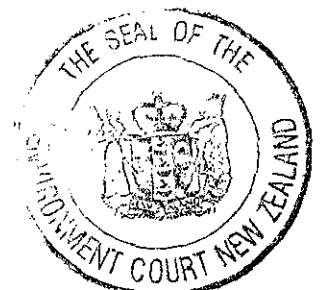
¹⁵⁴ Smart, rebuttal, paragraph 4.

¹⁵⁵ A significant flood was defined as being a flood of greater than a 5-year return period – Smart, EiC, 6.9.

¹⁵⁶ Smart, EiC, paragraph 6.8.

¹⁵⁷ Smart, EiC, paragraphs 6.9 and 6.10.

¹⁵⁸ Smart, EiC, Figure 2.



statistics show, that the effect of the TPD has reduced the mean annual flood by 12% at the Whakapapa footbridge, by 8% at Piriaka, by 5% at Te Maire and by 2% at Paetawa. The 5-year return period flood statistics, as presented in Dr Smart's Figure 3, show that as the flood increases in magnitude, and thus has a greater effect on the river's morphology, the effect of the TPD diversions becomes proportionally smaller¹⁵⁹.

[186] Dr Smart addressed the specific matters raised by the customary witnesses and we consider each in turn.

(a) Change in the river channels and erosion of the banks

[187] Dr Smart reiterated what he said in his evidence in chief with regard to the effects of flooding on the form of the river. He elaborated on the river's geological base in some detail and the effect of water movement on the sediment derived from that base. He concluded that the changes to the river channels are an ongoing process, are natural and are not caused by the TPD diversion¹⁶⁰.

(b) Increase in sediment

[188] Dr Smart explained that the reason for a buildup in sediment is¹⁶¹:

- Firstly, due to the decreased frequency of eruptions, the supply of coarse sediment to the river has declined. Consequently, the river is eroding more sediment from its bed and banks as there are fewer gravel bars in the river to filter fine sediment out of the water;
- Secondly, large quantities of sediment are brought into the Whanganui from tributaries such as the Ongarue and Ohura. The historic conversion of areas of these catchments from bush to pasture, combined with the increase in flood activity over the last 10 years, has increased the delivery of fine sediments from these tributaries;

¹⁵⁹ Smart, EiC, paragraph 6.4.

¹⁶⁰ Smart, rebuttal, paragraphs 8-14.

¹⁶¹ Smart, rebuttal, paragraphs 15-19.



- Thirdly, because the river is currently eroding sediment from its bed, the level of the bed is slowly getting lower with time. This is exacerbated by the flooding. Consequently, the flushing capacity of the river is reducing year by year.
- Fourthly, the water diverted by the TPD also carries around 40,000 tonnes of fine sediment per year, which is removed from the river system.

[189] Consequently, it was Dr Smart's opinion that the return of TPD water and associated sediment would have little dilution effect.¹⁶²

(c) Shingle reduction

[190] Dr Smart told us that the TPD diversions are not causing a deficit of shingle for three reasons:¹⁶³

- Firstly, while the Western Diversion diverts quantities of fine sediment, it has little influence on coarse sediment, such as shingle. If the intakes were reducing the supply of shingle to downstream reaches there would be a major buildup of shingle. This is not the case.
- Secondly, the lull in coarse volcanic material supplied by eruptions.
- Thirdly, large excavations of shingle for roads and railways that have taken place near Taumarunui, will take many years to ameliorate, as shingle does not move far in floods.

[191] We accept the uncontradicted evidence of Dr Smart. The river is constantly in a dynamic state and the major cause of dramatic morphological changes is floods. The TPD has little influence on flood events. Other factors such as land use changes, natural events such as eruptions and lahars, also have an influence. We conclude that the Western Diversion has very little effect on the morphology of the river and its tributaries.

¹⁶² Smart, rebuttal, paragraph 18.

¹⁶³ Smart, rebuttal, paragraphs 23-25.



(iv) **Effect on ecology – invertebrates and fish**

[192] A number of witnesses called by Genesis discussed in some considerable detail the effect on the ecology of the waterways and the affect of the diversion on the invertebrate and fish life. These witnesses included Mr Ian Jowett, a scientist with NIWA, Dr Jacques Boubee, a fisheries scientist, also from NIWA, Dr Kevin Collier, whose evidence was taken as read, a scientist with NIWA specialising in aquatic ecology, Mr Paul Kennedy, and we also heard from Dr Brent Cowie, called by the Council.

Mr I G Jowett

[193] Mr Jowett told us that since 1978 he had researched the factors that influence the abundance and distribution of fish and invertebrates in New Zealand rivers. From the surveys carried out he has developed methods to assess the flow requirements and instream habitat required for instream biota. His evidence described how these factors were related to a variety of fish and invertebrates in rivers and streams of the TPD. Mr Jowett first explained the background to his work.

[194] Although there are a number of methods for assessing river flow requirements, those that are based on the habitat itself, are the most favoured. Of these the one in most common use throughout the world, and the one favoured by Mr Jowett, and other scientists who gave biological evidence, is the “Instream Flow Incremental Methodology” (IFIM). He believed it to be the most consistently applied and detailed method of flow assessment in instream habitat modelling.¹⁶⁴

[195] This methodology is based on a number of empirical assumptions. Each species living in a river has evolved to live best under certain combinations of depth, velocity, and bed substrate, water temperature and water quality¹⁶⁵. The IFIM process considers all physical environmental changes including: physical habitat; water temperature; water quality; and river morphology¹⁶⁶. The IFIM model is a way of using these relationships to determine optimum flows for each species at each stage of its life cycle within the river. It is a means by which a range of biological information can be introduced into the flow assessment process, thus allowing alternative flow regimes to be evaluated in a

¹⁶⁴ Jowett, EiC, paragraphs 2.12-2.13.

¹⁶⁵ Jowett, EiC, paragraph 2.24.

¹⁶⁶ Jowett, EiC, paragraph 2.24.



quantitative way¹⁶⁷. It does not predict the numbers or biomass of organisms that will actually be in a river at any given time¹⁶⁸.

[196] The results are said to often contradict the belief that “more flow is better” or that “the natural flow is the best”. This is because the existing or natural flow may not be the most ideal for every different instream use. For example, the flow requirements for trout spawning, fry and juveniles are quite different from the flow required for adult trout, such that the habitat suitability will vary greatly in different parts of the same river.¹⁶⁹

[197] Cross-sections of the different habitats are selected at random and surveys of the different habitat criteria are carried out. These are most commonly depth, velocity and substrate, but the analysis is strongly influenced by the particular habitat criteria that are used¹⁷⁰. The cross-sections are then computer summated over a reach, to give a final assessment of that part of the river.

[198] Although in the aquatic environment, instream habitat refers to the physical habitat, the quality of the habitat is better determined from the abundance of animals in them¹⁷¹. Habitat criteria needs to consider all the life stages of these animals and, where appropriate, include the production of food for those life stages. When many fish species and life stages are present in a river, there are usually conflicting flow requirements.

[199] Information on habitat suitability is gathered over a long period of time, and from a wide range of rivers. In some there is, or has been, abstraction of water and in others no abstraction. The suitability of the habitats of native fish were defined by surveys of 35 rivers around the whole of the North and South Islands¹⁷². These surveys confirmed overseas studies that have demonstrated a direct relationship between the fish population and the useable habitat and available food.

[200] Genesis Power commissioned Mr Jowett to carry out instream habitat surveys of the river system of the Western Diversion using the IFIM technique, and with minimum flows compared with the rivers' natural flows. Flow requirements were assessed for

¹⁶⁷ Jowett, EiC, paragraph 2.23.

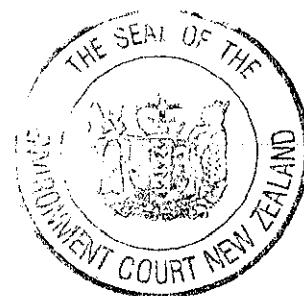
¹⁶⁸ Jowett, EiC, paragraph 2.25.

¹⁶⁹ Jowett, EiC, paragraph 2.26.

¹⁷⁰ Jowett, EiC, paragraphs 2.37 and 2.40.

¹⁷¹ Jowett, EiC, paragraph 2.40.

¹⁷² Transcript, pages 395-396.



those fish species known to be present in the rivers, (i.e. longfin eel, rainbow trout, brown trout and Crans bully).

[201] In the Whakapapa River, the reduction in flow from its natural flow to a minimum flow of 3 cumecs has, in the 1 kilometre reach below the intake, reduced the average width of the river, and its depth by 20% and its velocity by 50%. According to Mr Jowett, this has no apparent effect on the native fish and juvenile trout, but has reduced the suitable habitat for adult brown trout by 20% and for adult rainbow trout by 70%.

[202] In the Whanganui River main stem, Mangatepopo, Tawhitikuri, Taurewa and Okupata Streams, the instream habitat surveys were made in the reaches up to 0.2 kilometres below the intakes of the three shorter streams and 1 kilometre below the intakes of the two larger rivers¹⁷³. The areas immediately below the intakes were selected as locations because the relative change in flow is greatest in these sections of the rivers. No water was diverted through the intakes when the surveys were first made, but after appropriate measurements were completed flow diversion was recommenced and further measurements taken to establish a relationship between flow and water levels¹⁷⁴. At the time of these investigations the minimum flow requirements for the Whanganui River and the Mangatepopo Stream had not been decided upon.

[203] In those sections of all the streams between 0.2 and 1.0 kilometre below the intakes, water surface widths and average depths were about 50% of "natural" flow. Average water velocity in these sections was 70 – 90% lower than at "natural" flow and the total area of fish habitat was 40 – 60% of that available at normal summer flow without diversion¹⁷⁵. The effect of diversion on the Tawhitikuri, Taurewa and Okupata Streams was relatively minor because they are short¹⁷⁶. The effect of flow reductions on stream width was most visible in the Mangatepopo Stream, where it was apparent until its confluence with the Whanganui River. However, the effect on native fish and rainbow trout fingerlings extended no further downstream than the first major tributary, about 3 kilometre below both the Mangatepopo and the Whanganui intakes.¹⁷⁷

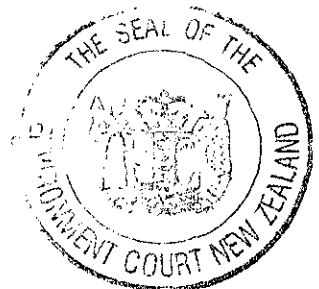
¹⁷³ Jowett, EiC, paragraph 4.5.

¹⁷⁴ Jowett, EiC, paragraph 4.6

¹⁷⁵ Jowett, EiC, paragraph 4.19.

¹⁷⁶ Jowett, EiC, paragraph 4.21.

¹⁷⁷ Jowett, EiC, paragraph 4.20.



[204] However, from the modelling, the reduction in habitat for native fish and juvenile trout was not found to be as great as the reduction in width and in some cases flow diversion has increased the amount of available habitat. Mr Jowett told us that the reason for this was that the maximum amount of habitat for smaller fish is provided by flows that are intermediate between the “natural” flow and the “residual” flow.¹⁷⁸

[205] In both the Whanganui River and the Mangatepopo Stream, the amount of habitat available initially increases sharply with flow and then reaches a maximum, optimum value. As flow increases above this, the amount of habitat either remains constant or decreases.

[206] On the basis of these surveys Mr Jowett concluded that a minimum flow of 0.5 cumecs in the Mangatepopo Stream and 0.3 cumecs in the Whanganui River, would increase the available habitat for benthic invertebrates and provide near optimum habitat for native fish and juvenile trout. Such flows were also recognised as optimum for blue duck habitat.¹⁷⁹

[207] Although minimum flows are specified in the Whakapapa and Whanganui Rivers, periodic wetting and drying of the margins occurs when the flow contribution from uncontrolled tributaries varies. Compared to these variations, Mr Jowett told us, the short duration reductions in water level, allowed by the resource consent conditions, will be insignificant, and have no significant effect on benthic invertebrates.¹⁸⁰

[208] Based on these conclusions, Mr Jowett could not agree with the statements of evidence, adduced by the Whanganui iwi and Ngati Rangī, that stated that the reduction in the number of fish in the rivers had been caused by the TPD. He claimed that *if the quality and quantity of suitable fish habitat reduces with a change in flow, then fish abundance is also expected to*¹⁸¹. However, flow changes and resulting water levels are not sufficiently large to effect fish habitat detrimentally. Indeed, he reiterated that *the flow reduction has no negative effect on native fish, and in fact produces a slight benefit*¹⁸². Changes in fish population that have occurred, he states, have occurred for

¹⁷⁸ Jowett, EiC, paragraph 4.8

¹⁷⁹ Jowett, EiC, paragraph 7.5.

¹⁸⁰ Jowett, EiC, paragraph 5.13.

¹⁸¹ Jowett, EiC, paragraph 4.

¹⁸² Jowett, EiC, paragraph 9.



reasons not related to the operation of the TPD diversions, apart from potentially immediately below some intakes.¹⁸³

Dr J Boubee

[209] Dr Boubee described for us the benthic invertebrates and the indigenous and introduced fish present in the Western Diversion streams and the effect the TPD has had upon them.

Benthic Invertebrates

[210] Benthic invertebrates form a major food source for fish. Their kind and density is largely determined by the type of habitat available, and their diversity can provide a measure of a stream's health¹⁸⁴. As water quality decreases certain taxa become less well represented in the community.¹⁸⁵

[211] As a part of his work for Genesis, Dr Boubee collected benthic invertebrate samples from 13 sites, upstream and downstream of the major rivers and streams of the Western Diversion¹⁸⁶. These samples were identified and counted, so that their abundance and community composition above and below the intakes could be compared statistically.¹⁸⁷

Whakapapa River

[212] Being considerably larger than the other streams the Whakapapa River was assessed separately by Dr Boubee.¹⁸⁸

[213] A comparison of invertebrates above and below the intake showed that densities were significantly higher below the intake than above¹⁸⁹. A "score" (the MCI index) indicating the quality of the water, given to the different sites of collection, were all below what would be considered as pristine (MCI 120), but typical of large catchments

¹⁸³ Jowett, rebuttal, paragraph 3.

¹⁸⁴ Boubee, EiC, paragraphs 3.1 and 3.2.

¹⁸⁵ Boubee, EiC, paragraph 3.9.

¹⁸⁶ Boubee, EiC, paragraphs 3.5, 3.6 and 3.8.

¹⁸⁷ Boubee, EiC, paragraph 3.9

¹⁸⁸ Boubee, EiC, paragraph 3.13.

¹⁸⁹ Boubee, EiC, paragraph 3.15.



with a moderate degree of development¹⁹⁰. Dr Boubee compared his findings with 5 other surveys done above and below the intake, and all done prior to the establishment of the 3 cumec minimum flow. Two showed no significant difference and three showed higher abundance above than below, and the one survey with the present minimum flow showed higher numbers below than above. There is, therefore, good evidence to suggest that the minimum flow regime will ensure that habitat will be retained below the intake at all times.¹⁹¹

[214] Further downstream sampling has been carried out at least 14 times since the 1930s. In comparing these results with his own downstream sampling, Dr Boubee told us that although the invertebrate communities have varied markedly over time, there is nothing to suggest that there have been any significant changes in the composition and abundance of benthic invertebrates as a result of the TPD. Those changes that have occurred have been the result of lahars, the amount of sand transported by the river, and the periodicity and intensity of floods.¹⁹²

Whanganui River, Mangatepopo, Tawhitikuri, Taurewa and Okupata Streams

[215] Dr Boubee told us that, from a visual assessment of the habitats above and below each intake, it became apparent that the reaches above the intakes were often morphologically different from those below. This he thought to be due to the differences in gradient and the degree of channel confinement. These differences have a principal role in determining the habitat of the invertebrate community present. Although, during the survey, stream channels were often dry immediately below the intakes, invertebrate communities had established within 200 – 900m of the intakes.¹⁹³

[216] Comparisons of the invertebrate communities above and below the intakes did not show any consistent pattern. In some cases, invertebrate density and diversity were higher upstream, where flows were unmodified, yet in others, density and diversity were higher below the intakes¹⁹⁴. However, MCI scores at all sites (42 in number) were 119, or higher, indicating pristine conditions¹⁹⁵. Similarly, the periphyton community downstream of the intakes was counted at 14 sites, and at 20 sites in streams unaffected

¹⁹⁰ Boubee, EiC, paragraph 3.18.

¹⁹¹ Boubee, EiC, paragraph 3.19.

¹⁹² Boubee, EiC, paragraph 3.20.

¹⁹³ Boubee, EiC, paragraphs 3.24 and 3.25.

¹⁹⁴ Boubee, EiC, paragraph 3.26.

¹⁹⁵ Boubee, EiC, paragraph 3.27.



by the diversion. According to Dr Boubee, all counts indicated that the streams were in good health.¹⁹⁶

[217] As Mr Jowett noted in his evidence, diversion does reduce the total area of available invertebrate habitat, but Dr Boubee confidently expected this to improve markedly with the proposed minimum flows below the Mangatepopo and Whanganui intakes.

Fish Ecology

[218] At the same time as the invertebrate study was done, the same 42 sites were electrofished for at least a 30m length of stream or river. Nineteen months later an additional 20 sites above the intakes were also electrofished. Much of the information collected was used to determine how far inland species that migrate between freshwater and the sea, had penetrated. It also allowed Dr Boubee to determine whether the distribution and abundance of different fish species was influenced by the Western Diversion, either as a result of flow and habitat changes, or by creating barriers to fish passage.¹⁹⁷

[219] Most of the indigenous fish species found in the Whanganui catchment are diatomous (sea going). The distribution of the various species is, therefore, related to distance from the sea and elevation above sea level. Swimming and "climbing" ability will also determine whether a species can penetrate high gradient streams and pass over barriers such as waterfalls, road culverts and weirs. Suitability of habitat, fishing pressure and response to environmental factors will also influence distribution and density.¹⁹⁸

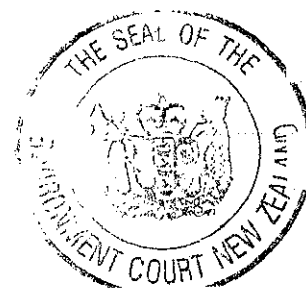
[220] Dr Boubee discussed each of these limiting factors in detail and drew our attention to the studies of Woods (1964) and the records of the NZ Freshwater Fish Database, and compared them to his own findings. Woods' summary of the fish distribution in 1962 still applies today, except for one major difference. Brown trout are now also found above the Whanganui intake, whereas Woods reported that only rainbow trout and long-finned eels were present above the intakes.¹⁹⁹

¹⁹⁶ Boubee, EiC, paragraph 3.30.

¹⁹⁷ Boubee, EiC, paragraphs 4.6-4.9.

¹⁹⁸ Boubee, EiC, paragraph 4.25.

¹⁹⁹ Boubee, EiC, paragraph 5.25.



[221] The reduction in eel density above the intake has its origin in two main factors. Firstly, a lack of eel recruitment from downstream²⁰⁰, a reflection of the decline in eel recruitment world wide. Because they are slow growing, long lived, and are caught before they can reproduce and spawn at sea, excessive harvesting has reduced stocks and recruitment. This is especially the situation in NZ. Secondly, without minimum flows below the structures eels could not reach that high. With the provision of a minimum flow below the Whanganui intake it is thought possible that a few eels, especially elvers (who are particularly good climbers), will be able to pass over the structure in the future.²⁰¹

[222] Dr Boubee told us, that the similarity in the distribution of native fish, before and after the Western Diversion was constructed, would seem to show that the diversions have had no significant downstream effect on the distribution of native fish. Dr Boubee found no evidence that eel numbers have declined in the catchment between the TPD intakes and Taumarunui since the TPD was installed. He went on to say that because of the inland distances and altitude, density and diversity above Taumarunui is limited. The most common species between the Whakapapa inlet and Te Maire are eels, Crans bullies, and rainbow and brown trout.

[223] In his conclusions Dr Boubee summarised his thoughts about fish distribution by saying:

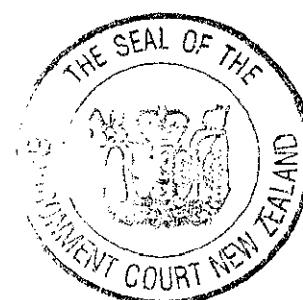
In respect of fish, the elevation of the TPD intakes and their distance from the coast, mean that there would naturally be very limited native fish populations in their vicinity. Natural barriers a short distance upstream of most intakes is a further factor limiting fish populations above the intakes. There are some localised and minor effects on fish populations in the vicinity of the intakes, however, there is no evidence to suggest that the TPD has had any effect on the distribution or abundance of fish in the river as a whole. Rather, changing land use, especially the loss of native forest cover, and over-fishing are both factors that have had serious implications for native fish in the Whanganui River and throughout New Zealand.²⁰²

[224] In the conclusions to his rebuttal evidence he reiterates these same beliefs that changing land use and over-fishing is the main cause of the poor catch experienced by the appellants. He agrees with the conclusion of Mr Jowett that:

²⁰⁰ Boubee, EiC, paragraph 5.28.

²⁰¹ Boubee, EiC, paragraph 5.29.

²⁰² Boubee, EiC, paragraph 6.3.



...apart from areas immediately below some intakes, the TPD has actually increased, albeit slightly, the habitat available for native fish.²⁰³

[225] In response to questions from the Court, Dr Boubee re-emphasised that above 600 metres there are going to be very few fish anyway and said:

You know, really it is the best place they could have put the intake as far as impact on fish.²⁰⁴

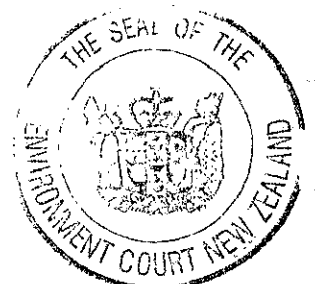
Fish abundance and land use

[226] Although there have been no specific studies carried out on the distribution of fish in the Whanganui River catchment in relation to land use, it is recognised that a number of factors control distribution and abundance of fish species in fresh water environs. These were listed by Dr Boubee as:

- Distance to migrate from the sea and the ability to penetrate inland over natural barriers. This favours species such as koaro and long-finned eels, with good climbing ability. Generally, diversity and abundance are highest at low elevations, near stream and river mouths, and lowest at higher elevations, where fish species that do not migrate are more common.
- Land use is also a factor though the relationship between species distribution and land use is a complex one. However, there is good evidence to show that the retention of riparian strips will protect native fish communities.
- Forestry induced changes include altering the stream flows, alteration of the channels, increased sediment, altered light, altered nutrient input and changing stream temperature. Forestry plantings near waterways will also impact the hydrogeologic balance due to the effect forestry trees will have on rainfall interception, water uptake and evapo-transpiration.
- Pastoral land, on the other hand, is likely to result in increased nutrient and light inputs which increase productivity of the streams. However, such land use has the potential to markedly increase the sediment load (from land clearance and pastoral activity) with a resultant negative input on native fish communities.
- Lahars and volcanic activity can have a very significant effect on fish population. Although many fish are quite tolerant of high concentrations of suspended particulates, the combination of a low pH and suspended solids are intolerable to most fish.

²⁰³ Boubee, rebuttal, paragraph 8.1.

²⁰⁴ Transcript, page 420.



[227] Table 2, attached to the evidence of Mr Kennedy, showed a comparison of land uses in the 1970s and the 1990s in the total Whanganui River catchment. Significant among the parameters tabled were:

- (i) A 3% increase in planted forest (representing an area of 216 square kilometres,
- (ii) The loss of 5% of indigenous forest (239 square kilometres);
- (ii) And the loss of 9% of scrub land (635 square kilometres).

Each, of these are, in their own way, responsible for a significant alteration in overland flow to the rivers and streams of the catchment.

[228] As part of his summary²⁰⁵ Mr Kennedy said:

Overall, it is evident that when the abstraction of water for the TPD, via the Western Diversion, is examined in relation to the effect that the abstraction has on the water quality of the lower river, at and below Te Maire, that the abstraction does not have any significant effects on key aspects of water quality. This lack of change arises because the discharge from rivers such as the Whakapapa do not differ significantly from the normal quality in the river such that the resultant decrease in flow does not significantly change water quality.

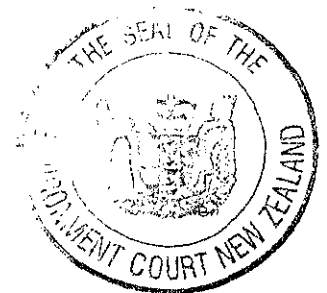
Dr B Cowie – an overview of the Western Diversion

[229] Dr Cowie appeared as a witness for the Manawatu-Wanganui Regional Council, by whom he had previously been employed as Group Manager, Resources, and who he represented on the Consultative Core Management Group relating to the TPD.

[230] With regard to the water quality of the Whanganui River he accepted the evidence of Mr Kennedy with only very minor differences, regarding colour and clarity in the Whanganui River. Overall, he agreed that these differences are insignificant in comparison to the adverse effects of land use in the Whanganui River catchment. In cross-examination²⁰⁶ he told the Court that what was originally native forest is now 30-39% in pastoral farm, much of which is in the upper reaches of the catchment on land that is highly erodable. As a result there is an enormous amount of sediment and point source

²⁰⁵ Kennedy, EiC, paragraph 10.7.

²⁰⁶ Transcript, page 726.



contamination in, and still entering, a lot of the rivers and streams. As a result, water quality is visibly highly degraded in the lower reaches of the Whanganui River.²⁰⁷

Fisheries

[231] In adopting the evidence of Dr Boubee, Dr Cowie stated that in his view no more comprehensive information was available than that summarised and presented to the Court, by Dr Boubee.

[232] Dr Cowie also pointed out, that most of the streams diverted for the TPD, have natural impassable barriers near the diversion structures. These include the Mangatepopo Gorge, immediately above the TPD diversion, and large waterfalls in the Whakapapa stream, which is one of the major tributaries of the Whakapapa River.²⁰⁸

[233] He concluded that:

....(as Dr Boubee concluded)The construction of the TPD has had no adverse effects on the distribution of native fish and trout in the upper Whanganui catchment.....As the formation of Lakes Te Whaiu and Otamangakau has created highly regarded trout fisheries, in my view the overall effects of the Western Diversion on trout distribution and abundance have been positive.

Invertebrate Communities

[234] Dr Cowie adopted the evidence of Dr Boubee in respect of the invertebrate communities in the Western Diversion. He makes only the point that macroinvertebrate communities in NZ are known to adapt to widely fluctuating flow regimes, probably because they can move laterally or downwards into the bed during high and low flows.

[235] In cross-examination Dr Cowie said:

I think you can say that the TPD has had little effect or minimal effect on water quality, virtually no effect on invertebrate communities, and a very small effect on trout fisheries but not native fisheries. I believe you can separate those out, and then you look at what is causing the decline in other things in the catchment, and I think there are two things there. First of all, water quality has definitely declined, and that is largely because of the effects of land use. Secondly, I think there is no doubt that the fisheries, particularly the eel fishery in the catchment, has declined, but that is due to world-wide, and certainly New Zealand-wide declines in eel population.....and I think throughout the country eel populations have

²⁰⁷ Transcript, page 726.

²⁰⁸ Cowie, EiC, paragraph 40.



declined dramatically in the last 20, 30, 40 years, predominantly due to overfishing.²⁰⁹

Decline of native fish

[236] The customary evidence stressed the decline in the native fish populations following the diversion of the Whanganui waters. This was addressed by the expert witnesses called by Genesis in their rebuttal.

[237] The situation regarding eels we have discussed in relation to Dr Boubee's evidence. In a document appended to Mr Taiaroa's evidence, is a reference to a Fisheries Environmental report²¹⁰, which states:

In the Whanganui area, approximately five full-time and 25 part-time commercial eelers are known to base their operations in the Whanganui River.....Up to 400 fyke nets may be used in the river at any one time.

[238] Under such high fishing pressure, Dr Boubee and Dr Cowie expressed no surprise, that traditional fishers now find it hard to catch sufficient eels to meet their needs.

[239] Dr Boubee discussed the problems regarding lamprey, smelt and whitebait. He believes that the main cause of their decline is habitat degradation²¹¹. With regard to lamprey he told us that there is still a great deal to learn about them. There is, for example, very little information about the effect of land-use change and other environmental pressure on lamprey populations. With a relatively long life-cycle, the species is likely to be vulnerable to a variety of factors that may influence its population and survival. Without a better understanding of their life habits, he said, it is impossible to determine what affects them and if anything can be done to enhance the population.²¹²

[240] Dr Boubee told us, that smelt and whitebait have markedly declined throughout the country²¹³. Mr Potaka told us that it was his opinion that this was due to the TPD preventing shingle from being brought down the river. This was not specifically answered by any scientist, in rebuttal, but Dr Boubee gave it as his opinion that habitat

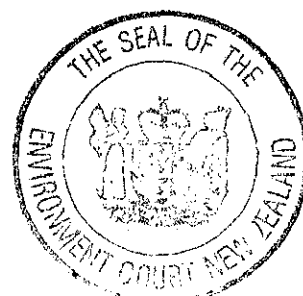
²⁰⁹ Transcript, page 727.

²¹⁰ No. 24, September 1982.

²¹¹ Boubee, EiC, paragraph 3.1.

²¹² Boubee, EiC, paragraph 5.3.

²¹³ Boubee, EiC, paragraph 6.2.



destruction and, in particular, excessive pastoral drainage and the removal of bank-side vegetation along waterways, coupled with high fishing pressure, are the main causes of the decline.²¹⁴

[241] Mr Kennedy, in rebuttal, told us that the kakahi or fresh water mussel is still to be found, though in a very seaward location. Although low in number, when surveyed in 1989, they were considered to be of good size and health. The surveyor²¹⁵ considered that in the middle reaches of the river the banks are too steep and flows too fast for freshwater mussels²¹⁶. This is because sediments such as sand are the preferred habitat and in many sections of the river the flow is sufficiently fast as to prevent a build up of fine sediment²¹⁷. He told us, that there is no scientific evidence to suggest that the flow changes arising from the abstraction of water by the TPD has played a part in the decline.²¹⁸

[242] Mr Potaka notes that

Koura (freshwater crayfish) used to be in the Whanganui River and its side creeks and we would take them as food from there. The creeks are dry, the riverbed low and the food is no longer available.²¹⁹

[243] Mr Kennedy drew our attention to a series of surveys carried out from 1980 to 2003 showing that koura are widespread throughout the Whanganui River basin²²⁰. Their abundance can easily be under-estimated as they are night active²²¹. He said there is little evidence that land-use changes affect koura abundance and distribution, though they are sensitive to pesticides and grow faster (with shorter life cycles) in the typically warmer waters of pasture land.

[244] Indigenous fish in the Whanganui catchment have supported traditional and recreational fisheries for generations. Traditional Maori knowledge recognised many species and several were highly valued as a food resource. This was especially true of eels but also lamprey, whitebait and others. Trout were introduced but have supported a valued recreational fishery. The New Zealand Freshwater Fish Database contained

²¹⁴ Boubee, paragraph 6.2.

²¹⁵ Forsyth (1989).

²¹⁶ Kennedy, rebuttal, paragraph 3.10.

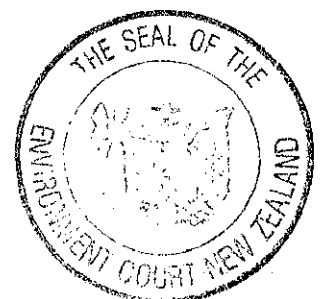
²¹⁷ Kennedy, rebuttal, paragraph 3.12.

²¹⁸ Kennedy, rebuttal, paragraph 3.13.

²¹⁹ Potaka, EiC, paragraph 17.

²²⁰ Kennedy, rebuttal, paragraph 3.21.

²²¹ Kennedy, rebuttal, paragraph 3.19.



records of fish from 310 sites in the Whanganui catchment. Of all the fish caught in 1999; 46% were eels, 18% were bully of one type or another; koaro, kokopu, smelt and Torrentfish were each 1%.²²²

[245] Between 1960 and 1962 Woods investigated the distribution and density of fish in the upper Whanganui catchment. Above the planned diversion sites he found only small rainbow trout and longfinned eels. Below the sites he recorded brown and rainbow trout, long and shortfinned eels and Crans bullies. Upland bullies, smelt and torrentfish were found at Taumarunui. No koaro were found in the Whanganui River above Taumarunui.²²³

[246] This survey was repeated in 1999 and 2002 by Dr Boubee, together with an update in July 2003 of the NZ Freshwater Fish Database, and a comparison of these figures with those of Woods indicates that very little change has occurred. In the 1999 survey the average number of fish caught per 100m² was 7.7 of which 7.0 were native fish and 0.7 were trout. The density compared well with other NZ rivers 150m or more above sea level.²²⁴

[247] The similarity of the surveys relating to the distributions of native fish, before and after the Western Diversion was constructed, led Dr Boubee and the other experts to conclude, that the diversions have had no significant downstream effect on the distribution of native fish.²²⁵

[248] There was no suggestion by the fishery experts that there has not been a marked reduction in fish numbers in the main stem of the river. However, they went to some lengths to explain that the habitat degradation causing this was not related to the structures of the TPD, but was instead due to overfishing, lack of juvenile recruitment, pastoral development, loss of forest, point source contamination and the enormous quantity of silt being introduced into the body of the river by its larger tributaries.²²⁶

[249] With the exception, that we find there has been a detrimental effect on the fisheries habitat of native fish and the traditional fishing methods by the reduced flow of the river we accept the evidence of the expert witnesses.

²²² Boubee, EiC, Table 2 (appended to evidence).

²²³ Boubee, EiC, paragraph 5.11.

²²⁴ Boubee, EiC, paragraph 5.14.

²²⁵ Boubee, EiC, paragraph 5.26.

²²⁶ Boubee, EiC, paragraph 6.3.



The Eastern Diversion – the Whangaehu Catchment

[250] As mentioned, the Eastern Diversion truncates the headwaters of 22 streams, all tributaries of the Whangaehu River. The Whangaehu itself is not diverted, because of its natural acidity,²²⁷ caused by it being partially fed by the acidic Mt Ruapehu crater lake.

[251] A number of the Ngati Rangi iwi gave evidence about their cultural practices. We have discussed the spiritual dimensions of that evidence. They also gave evidence relating to the effects of the river on the manner in which they carry out their cultural practices, and in particular the effect on native fish populations and the quality of the water of the Whangaehu River.

Customary evidence – and Dr Shane Wright

[252] Mr Colin Richards told us, that there used to be giant eels in the streams of the Whangaehu and how their kuia used to talk about them.²²⁸ He told us how fishing still plays an important role in their hospitality and how, still today, his tuakana goes out fishing for tangi or hui. He referred to...*tuna, inanga, ika – all our local delicacies...*²²⁹

[253] Mr Richards made reference to the sulphur content of the Whangaehu and how the science of the western world says...*there can be no life essence...* . However, he said:

Our tuna would travel up Whangaehu into her streams, and at certain times our people would catch those tuna. And also in the Tokiahuru.²³⁰

[254] Ms Taute told us, that fishing provided an important source of kai in the region.²³¹ She said, that in the Karioi region, it never took long to catch enough fish, crayfish or eel to fill a sack. However, it is much more difficult now to catch enough for a meal as the fish and eel are less numerous and the crayfish smaller²³². Mr Edmonds told us, that in Karioi, the streams that run into the Whangaehu were teeming with eels and how the migrating eels, known as tuna heke, migrated out to sea and back again through the

²²⁷ Kennedy, EiC, paragraph 13.1.

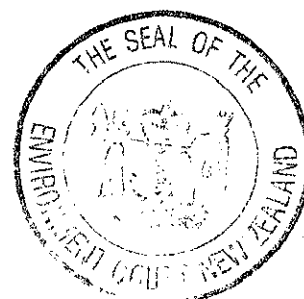
²²⁸ Richards, EiC, paragraph 2.15.

²²⁹ Richards, EiC, paragraph 2.18.

²³⁰ Richards, EiC, paragraph 2.19.

²³¹ Taute, EiC, paragraph 2.5.

²³² Taute, EiC, paragraphs 2.5-2.7.



Whangaehu. He described how they used a particular method to catch the migrating eels in the Whangaehu. He also stated that there were plenty of crayfish in the creeks²³³.

[255] Mr Wood referred to the tributaries of the Whangaehu being an important food basket for their people²³⁴. He interpolated his written evidence and named the Tokiahuru and the Waiharakiki Rivers as being affected²³⁵.

[256] The customary evidence collectively emphasised the decline in native fish since the commissioning of the Eastern Diversion. We have no reason to doubt the sincerity and accuracy of that evidence. Unfortunately, the areas where the fish were caught were not delineated with any scientific exactness – but we can understand the difficulty of non-expert witnesses in this regard. The witnesses were not cross-examined on this part of their evidence.

[257] Dr Shane Wright, an ecologist/biogeographer and uri of Ngati Rangi, lent some support to the customary evidence. It was Dr Wright's opinion, that the eel is highly tolerant of acidic water and the removal of the ameliorating flow of the Waihianoa and other tributaries, might well be critical in determining when a "window of opportunity" may arise, when upstream migration would be open.²³⁶

[258] Dr Wright also emphasised the cumulative impacts of approximately 27 kilometres of overall dewatered stream length. He considered that cumulative impacts indicate a significant adverse effect on the intrinsic stream values of the Whangaehu tributaries²³⁷. These cumulative impacts include:

- (i) changing some of the tributaries from a "stream-habitat" to a "wetland habitat";²³⁸
- (ii) sediment impacts as indicated by the need to use artificial means to move "gravel buildup";²³⁹
- (iii) the likely biotic impacts of the Whangaehu and its tributaries; and²⁴⁰

²³³ Edmonds, EiC, paragraphs 2.2-2.8.

²³⁴ Wood, EiC, paragraph 4.10.

²³⁵ Transcript, pages 815 and 816.

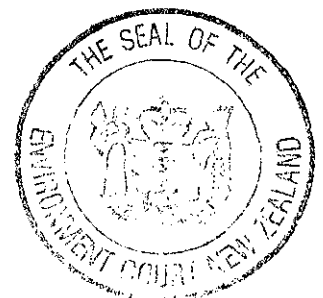
²³⁶ Transcript, pages 937-943.

²³⁷ Wright, EiC, paragraph 3.2.

²³⁸ Dr Wright referred to the findings of Kennedy, EiC, paragraph 19.2.

²³⁹ Wright, EiC, paragraph 3.5.

²⁴⁰ Wright, EiC, paragraph 3.4.



- (iv) the likely effect on invertebrate populations and fish populations.²⁴¹

[259] In addition to the effects on fishing, we also heard how the change in the Whangaehu River has affected its traditional healing capacity. Ms Wood told us of the very close healing relationship with the Whangaehu and how it is different now ... *the water is no longer as it naturally was.*²⁴²

[260] As we comprehend the customary evidence of Ngati Rangi, relating to matters other than spiritual, their main concern is the effect of the diversion on Mahinga Kai and the healing properties of the Whangaehu. There was a considerable amount of evidence about the morphology of the Whangaehu and its tributaries – while this is important with respect to the physical effects on the environment, it is not necessary for us to discuss that evidence further as it is not relevant to the concerns raised by Ngati Rangi. Their concerns in this regard were, the reduction in flow, the water quality and their combined effect on the river ecology, particularly the fish populations.

Genesis evidence

[261] Again, as for the Western Diversion, Genesis called a number of expert witnesses to address the factors identified by Ngati Rangi in their customary evidence. Their evidence was also peer reviewed by Dr Cowie.

[262] We discuss below the various factors in the same order as we discussed. Mr Kennedy used a three group classification²⁴³ for the 22 streams affected by the Eastern Diversion as follows:

- (i) Group 1: The Wahianoa River (Stream 18) which arises at an altitude of more than 2,000 metres and is partly glacier fed.
- (ii) Group 2: Streams 5, 10 and 21 which originate from an altitude of approximately 1,800 – 2,000 metres but are not glacier fed (they are spring and runoff fed).
- (iii) Group 3: Streams 1–4, 6–9, 11-17, 19 and 22 which arise at or below 1,000 metres and are predominantly spring-fed.

²⁴¹ Wright, EiC, paragraphs 3.2-3.8.

²⁴² Wood, EiC, paragraph 2.4.

²⁴³ As classified by Hawes and Boubee (1993); Kennedy, EiC, paragraph 13.4.



(i) Water quality – the Whangaehu tributaries

[263] According to Mr Kennedy, the limiting factor in water quality is a decrease in pH below 5.0²⁴⁴. Although not a specific deterrent, ANZECC Guidelines (2000) state that soil and animal health will not generally be effected by water with a pH in the range of 4 – 9. Similarly, it is recommended that water for recreational use should not be below 5 or above 9. The effect of the crater lake discharge provides a degree of uncertainty to the water quality of the Whangaehu river, but this was present prior to the commissioning of the aqueduct.²⁴⁵

[264] The evidence of Mr Kennedy on water quality was taken from a number of surveys, particularly a 1998 survey done by Kingett-Mitchell. In this study, sampling sites were located to enable a comprehensive description of habitat conditions, macroinvertebrate communities, and the fishery in representative streams. Eight of the twenty-two tributaries, from which water is abstracted, were selected for the survey to assess the effects of water interception by the Wahianoa Aqueduct. The findings are as follows:

(a) pH

- The pH showed a wide variation ranging from 2.9 in the Wahianoa, and 8.0 in one of the Group 3 streams. The Wahianoa being the only stream outside the pH range of 6.5 – 9 being the range recommended for protection of aquatic ecosystems²⁴⁶. There were no significant differences in the upstream or downstream values for any individual stream.

(b) Temperature

- Allowing for temperature increases with decreased flow, and different catchment characteristics, there was no significant difference in water temperature for sites above or below the intakes.²⁴⁷

²⁴⁴ Kennedy, EiC, paragraph 15.37.

²⁴⁵ Kennedy, EiC, paragraphs 15.39-15.42.

²⁴⁶ Kennedy, EiC, paragraph 15.4.

²⁴⁷ Kennedy, EiC, paragraph 15.6.



(c) Dissolved Oxygen

- Only minor variations were noted, differences considered insignificant to healthy invertebrate and fish life. No significant differences were detected above or below the intakes.²⁴⁸

(d) Conductivity

- Conductivity is a measure of the concentration of the ionic constituents present in water. According to Mr Kennedy, the slight differences in conductivity here were due to the fact that the downstream sites were influenced by waters from other converging streams, or ground water seeps of different quality.²⁴⁹

(e) Nutrients

- Nitrates and dissolved reactive Phosphorus concentrations were at or below the median values for NZ rivers²⁵⁰. Slight differences observed in the concentration of nutrients in individual streams were, in Mr Kennedy's opinion, related to differences in immediate catchment type affecting surface runoff of nutrients, the presence of stock, sources of water and the uptake of nutrients by plants in the streams.

[265] With respect to the waters of the tributaries of the Eastern Diversion, Mr Kennedy said that the only comparable historic data (no date for the survey) is for 4 streams to the west of the aqueduct. A comparison with the analysis of those streams and the analyses of the streams affected by the aqueduct showed no significant difference for the parameters measured. Only very small differences were observed, and those relate to flow, catchment differences, the presence of stock and the source of the water, either spring or surface run off.²⁵¹

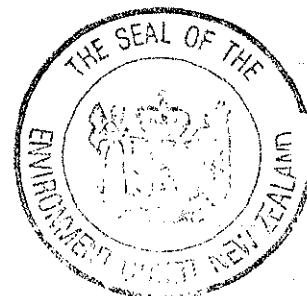
[266] We accept the uncontroverted scientific evidence adduced by Mr Kennedy, and conclude that there is no significant difference in water quality of the Whangaehu tributaries, arising out of the diverted waters of the aqueduct.

²⁴⁸ Kennedy, EiC, paragraph 15.7.

²⁴⁹ Kennedy, EiC, paragraphs 15.8 and 15.9.

²⁵⁰ Kennedy, EiC, paragraph 15.10.

²⁵¹ Kennedy, EiC, paragraph 15.44.



(ii) Water quality – Whangaehu River

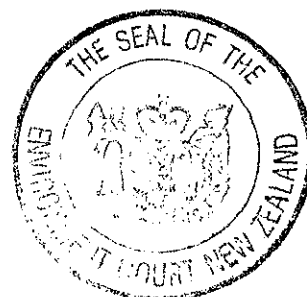
[267] We were told by Dr Cowie²⁵², that the diversion of an average of 3.4 cumecs from the upper Whangaehu catchment to the Waihinoa Aqueduct, reduces flows in the Whangaehu River by about 36% at Tangiwai at State Highway 4, and by 20%, from a mean of 16.5 cumecs to 13.2 cumecs at the Karioi Recording Station, about 15 kilometres downstream of State Highway 4.

[268] Dr Cowie referred to a report by Smith and Fowles (1987), which predicted that the diversion of high quality headwater streams would result in the average pH of the Whangaehu River being lowered by about 0.4 pH units; that is, the river would on average be slightly more acidic. This was confirmed by a further report done by Phillips (1995), where the recorded pH had declined by 0.43 pH units as a result of the Waihinoa diversion.

[269] Dr Cowie told us, that the Council holds 725 records of water quality samples collected from the Whangaehu River. All but about 20 of these include measurements of pH. Pre-diversion, the lowest pH recorded by the former Rangitikei-Wanganui Catchment Board, at Tangiwai, was 1.7. Post-diversion, the pH of the river has been recorded as being as low as 1.8 at Tangiwai and 1.9 at the Whangaehu Valley Road bridge, which is about another 30 kilometres downstream. He opined, that the pH was probably much lower than this during the lahar events in 1995 and 1996. He also emphasised, that during times when the river is highly acidic, it also has very high conductivity, and this buffers any significant changes in pH.

[270] Dr Cowie concluded, that this occasionally high natural acidity is undoubtedly the major factor causing the river to be so devoid of life. In the context of such a low pH range occurring naturally, he considered any decrease in the average pH as a result of the diversion to be quite insignificant. We accept the evidence of Dr Cowie.

²⁵² Cowie, EIC, paragraphs 54-57.



(iii) Effect on ecology – invertebrates and fish – the Whangaehu tributaries

[271] Streams of the aqueduct drain predominantly barren alpine soils, covered in snow for part of the year. The aqueduct itself is located within the exotic Karioi forest²⁵³. The mean annual flow from the aqueduct is 3.4 cumecs, and it can carry a maximum of 9 cumecs in flood conditions.²⁵⁴

[272] Mr Kennedy said, that the surface flow patterns do not necessarily reflect the size of the individual streams or their catchment. Ground water recharge and discharge has a strong influence on the flow pattern of streams as they get close to the aqueduct.²⁵⁵ Approximately 43% of the stream catchments are within the Karioi forest and the absorptive forest carpet could account for a 25% reduction in water flow from the forest catchment, representing an 11% reduction over the entire catchment.

[273] The intake structures of all Group 2 and 3 streams are designed to divert 1.5 times their mean annual flow, into the aqueduct. The Wahianoa has twice its mean annual flow diverted.²⁵⁶ There are no residual flow requirements at any of the intakes, any excess flow continues down the natural watercourse. Three Group 3 streams are now permanently dry (1, 7, 20) above and immediately below the intakes.²⁵⁷ There is a small amount of ground spring water to be found in their natural beds 0.5km below the intakes.

Habitat

[274] Mr Kennedy told us, that the habitat characteristics are related to the altitude at which the stream originates. The Wahianoa River is the largest of the waterways from which the aqueduct extracts water. The habitat of the river is influenced by large floods and the materials transported by the river. The riverbed substrate is dominated by boulder and large cobble sized material.²⁵⁸ Habitat conditions below the aqueduct remain similar to those above because of the high water volumes continuing downstream.²⁵⁹

²⁵³ Kennedy, EiC, paragraph 12.1.

²⁵⁴ Kennedy, EiC, paragraph 13.5.

²⁵⁵ Kennedy, EiC, paragraph 13.3.

²⁵⁶ Kennedy, EiC, paragraph 13.5.

²⁵⁷ Kennedy, EiC, paragraph 13.10.

²⁵⁸ Kennedy, EiC, paragraph 14.1 and 14.2.

²⁵⁹ Kennedy, EiC, paragraph 14.10.



[275] The upstream habitat of the Group 2 and 3 streams is, for the most part, very similar, with a preponderance of large and small cobbles and gravel. The Group 2 and several of the Group 3 streams have a preponderance of sand, such that the habitat becomes somewhat transitory as the substrate is easily mobilised with even moderate increases of flow.

[276] The Group 3 streams are generally small and spring fed. They drain catchments of tussocky grassland and plantation forest. Their instream habitat conditions are strongly influenced by riparian vegetation. Where forestry practices have removed riparian vegetation there has also been an alteration in the inputs of organic matter and light.²⁶⁰

[277] In his "Overall Conclusions" on habitat and hydrology, Mr Kennedy summarised by saying:

The extent of habitat loss as a result of dewatering downstream of the Wahianoa Aqueduct, is reduced as a result of the high number of spring fed tributaries entering the streams downstream of the intakes. This is more pronounced in streams towards the eastern end of the aqueduct.

The habitat conditions present upstream and downstream of the Aqueduct strongly reflect the land use within the catchment and riparian zone quality. Examination of the environments adjacent to the intakes shows that some local changes to wetland type habitat may have occurred immediately above and below the intakes, as a result of the presence of the intakes. This is in my opinion not considered to be significant.²⁶¹

Macro - Invertebrates

(a) Wahianoa River

[278] Mr Kennedy discussed a number of empirically based reports carried out in each of the streams by Kingett Mitchell in 1999 and concluded:

- No macro-invertebrates were found in the Wahianoa River, at sites either above or below the aqueduct. Previous studies in the 1960s and 1970s did identify macro-invertebrates in this river and in numbers similar to nearby streams that were not intercepted by the aqueduct. Following the 1996

²⁶⁰ Kennedy, EiC, paragraphs 14.7 and 14.8.

²⁶¹ Kennedy, EiC, paragraphs 19.1 and 19.2.



eruptions on Mt Ruapehu, the Wahianoa River was reported to be “lifeless”, and this is the situation that appears to have persisted.²⁶²

(b) Group 2 Streams

- Overall, the examination of the macro-invertebrate samples collected (the quantity and variety of macro-invertebrates), above and below the aqueduct showed that there were no taxa absent downstream of the aqueduct that would indicate that the aqueduct was affecting the composition of the invertebrate communities present.²⁶³

(c) Group 3 Streams

- In those sections of streams below the aqueduct where there is sufficient flow to support macro-invertebrates, they are generally of similar or better quality to those located above the intakes. The downstream flow in some streams appears to be effected much more than in others. The amount of water necessary to re-establish macro-invertebrates is really quite small and, with one or two notable exceptions, there are only relatively short sections of stream that are not capable of supporting a macro-invertebrate community.²⁶⁴

[279] According to Mr Kennedy, there is no evidence from any of the surveys done, that the aqueduct is responsible for any deleterious effects on any macro-invertebrate life forms, provided that a small flow remains in the stream bed below the intakes. With one or two exceptions this remains the case. The analyses of the communities shows evidence that the macro-invertebrates in the downstream sites are in a healthier state than in the upstream sites. A range of factors, other than the TPD, have an important effect on the communities present. Of specific importance in the area concerned are forests and forest related activities.

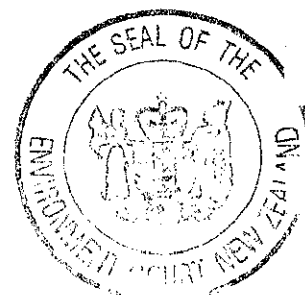
Fish in the Wahianoa aqueduct streams and rivers

[280] Mr Kennedy told us, that a total of two species of fish were found at sites in the streams intercepted by the Wahianoa Aqueduct. These were rainbow trout and brown trout, no native fish were found at any site. Rainbow trout were the most commonly

²⁶² Kennedy, EiC, paragraphs 17.2 and 17.3.

²⁶³ Kennedy, EiC, paragraph 17.7.

²⁶⁴ Kennedy, EiC, paragraph 17.11 and 17.12.



found, both above and below the intakes, brown trout were only found at one downstream site²⁶⁵, so there is no potential for them to enter the aqueduct from upstream.

[281] The comparison of the current data with historical data indicates that the trout densities are dependent on the timing of spawning, and whether there is sufficient flow in the streams to support them.²⁶⁶

[282] Mr Kennedy told us, that the Wahianoa Aqueduct reduces downstream flows and, therefore, has an influence on the amount of habitat available to fish. A number of streams were found to be dry in surveys conducted prior to the construction of the aqueduct, which would indicate that these streams may have had little potential of providing fish habitat at all.²⁶⁷

[283] He told us, that the aqueduct would also provide a barrier to the upstream migration of fish in any of the streams that would be capable of supporting their passage. However, several of the larger streams, by virtue of their origin, have extreme water chemistry and are uninhabitable. The upper Whangaehu River, for example, into which the streams intercepted by the Wahianoa Aqueduct drain, has poor water quality, and at certain times of the year would prevent fish migrating further upstream. Other physical barriers, unrelated to the aqueduct such as perched culverts, could also be preventing fish migration.²⁶⁸

[284] In summarising his evidence in regard to invertebrates and fish Mr Kennedy said²⁶⁹:

Overall, it is acknowledged that the Aqueduct intercepts a large amount of water from the streams, reducing the amount of available downstream habitat. However, in light of the fact that the stream flows are highly variable and the range of fish species present prior to construction was limited; and the potential effects of other activities, such as forestry, on habitat quality, it is my opinion that the interception of water has had a very limited effect on the fish populations of the Aqueduct streams.

[285] He went on to say:

There appears to be no differences in the macroinvertebrate communities indices and the water quality between sites above and below the intakes. In addition,

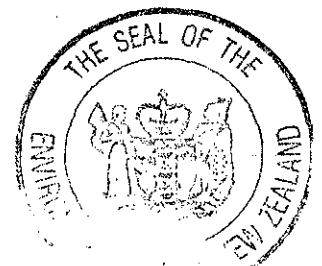
²⁶⁵ Kennedy, EiC, paragraph 18.20.

²⁶⁶ Kennedy, EiC, paragraph 18.21.

²⁶⁷ Kennedy, EiC, paragraph 18.17.

²⁶⁸ Kennedy, EiC, paragraph 18.18.

²⁶⁹ Kennedy, EiC, paragraph 18.22.



there appears to have been little change in the distribution of fish and the numbers of fish species present pre and post Aqueduct construction. Based on these observations it appears that the effects of the interception of water from streams by the aqueduct is limited.

The only time when it is anticipated that the quality of water downstream of the intakes could change would be the "first flush" when water spills over the intake following periods of heavy rain, when materials such as sediment and organic matter in the channel would be entrained and transported downstream.²⁷⁰ Information from all the streams (except the Wahianoa River) indicates that the water quality is such that it would not preclude its use for most common uses, such as potable water, stock water and recreation.

[286] On the basis of these assessments, Mr Kennedy considers that little, if any, mitigation is required. However, we note, that in his Kingett Mitchell (1999) report on the "Environmental Effects of the Wahianoa Aqueduct" he said:²⁷¹

Should mitigation be required, mitigation measures could include increasing the take of one of the larger rivers, such as the Wahianoa River, allowing either a reduction in take at some of the smaller streams to allow water to be spilled at less than 1.5 x mean annual flow, or the closure of a number of smaller intakes. A specific evaluation of environmental benefits would be required to identify what increases in flow would be required or intakes closed.

Dr Wright's criticism of Mr Kennedy's evidence

[287] Much of Dr Wright's evidence was, very largely, a critique of the evidence given by Mr Kennedy. He said in cross-examination that he had also read the evidence of Mr Bowler, but these were the only 2 statements of evidence he can remember being sent to him to review²⁷². Although he admitted to not having read Dr Cowie's larger report in full, he believed it to be an *independent report...not couched in any way to obfuscate or to conceal information and, therefore, having an independence and a strength on that basis*²⁷³. He went on to say that he referred more correctly to the appendices of Dr Cowie, which were a part of his evidence.

[288] Dr Wright posed a series of questions or 'invitations' to Genesis, but made no assessment himself on water quality, fisheries, invertebrate communities or biota. He was critical of the work carried out by Kingett Mitchell, in particular asserting that there had been no assessment of hydrological or biotic impacts, or the effects of the removal of sediment. This assertion was made in his written statement where he said:

²⁷⁰ Kennedy, EiC, paragraph 15.15.

²⁷¹ Kingett Mitchell Report 1999, page 42.

²⁷² Transcript page 915.

²⁷³ Transcript, page 921.



The cumulative impacts which cause considerable changes in habitat, and significant adverse sediment impacts do, in my opinion, demonstrate significant adverse environmental impacts.²⁷⁴

[289] Dr Cowie said that these assertions were demonstrably incorrect²⁷⁵. The work undertaken on behalf of Genesis, on the effects of the Wahianoa diversions, he believed was very comprehensive. The work to which Dr Cowie referred has been discussed in this decision.

[290] Dr Wright raised concerns about the dilution of the Whangaehu River, stating that the river would be less acidic in the absence of diversion. He cast doubts on the contention of Mr Kennedy and Mr Philips, that the main impacts on the river are the natural Whangaehu catchment processes. This he thought was highly misleading. It is, he said:

... the impact of the TPD on the intrinsic values of the Whangaehu natural catchment processes that is important to assess and consider.²⁷⁶

He also said:

In this respect it (Whangaehu River) is quite unique, and has a unique and distinctive adaptive ecosystem.²⁷⁷

[291] Regrettably, he took these statements no further and left us with no real understanding of what this really meant. His comments were not clarified during cross-examination. Dr Wright's frequent assertion that the Wahianoa River was a "traditional foodbasket" of the Ngati Rangi, suggested that without the TPD it would have remained so.

[292] A rebuttal brief by Mr Kennedy related largely to the evidence given by Dr Wright. Much of it was a repetition of his primary brief of evidence, which we do not think needs to be repeated. He agreed with Dr Wright that the interception of water by the aqueduct results in a decrease in the habitat available to macroinvertebrates. Where water is present and habitat is available the invertebrate populations are similar both downstream and upstream of the aqueduct²⁷⁸. Dr Wright, however, did not see this as

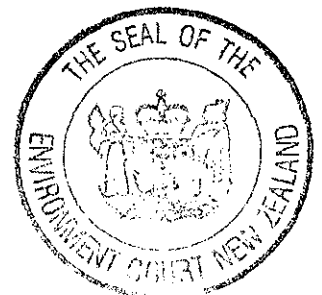
²⁷⁴ Wright, EiC, paragraph 3.13.

²⁷⁵ Cowie, rebuttal, paragraphs 19-21.

²⁷⁶ Wright, EiC, paragraph 3.9.

²⁷⁷ Wright, EiC, paragraph 3.9.

²⁷⁸ Kennedy, rebuttal, paragraph 2.15.



being an acceptable conclusion, he believes the population should be greater. Mr Kennedy, in answer, pointed out that despite the food availability, in the waterways intercepted, the extent of the resident native and introduced fish population remains very limited²⁷⁹. It is, therefore, difficult for us to understand what influence a greater population might have on the quantity and variety of fish life.

[293] The effects of land use changes and forestry were re-emphasised by Mr Kennedy as prime factors in the amount and quality of water reaching a stream. Dr Wright was not prepared to accept that these activities were able to abstract “a large amount of water”, which he then went on to relate to the de-watering of a number of the aqueduct streams. This was refuted by Mr Kennedy in his analysis of the 11% of total catchment flow that was intercepted by the Karioi forest alone.²⁸⁰

[294] Mr Kennedy stressed, that the only fish recorded in the tributaries diverted to the Wahianoa Aqueduct are stunted brown and rainbow trout, which are still present as a self-sustaining population. They were first recorded in surveys done prior to the aqueduct being built. No native fish have ever been recorded in these tributaries. Indeed, Woods (1964), in his assessment of the fisheries aspects of the potential TPD commented that no fish life is known to occur in the Desert Road streams of the upper Whangaehu River. The latest survey, done in 1999, found much the same fish distribution and density, with a few koura also found in a small number of tributaries, both upstream and downstream of the aqueduct.

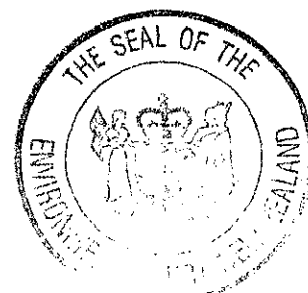
Dr Cowie – an overview of the Eastern Diversion

[295] Dr Cowie adopted the evidence of Mr Kennedy regarding the fish and invertebrate life in the tributaries of the Eastern Diversion. In addition he told us that the 27 kilometres of stream that may be dry at times, and is due to the effects of the TPD, is none the less of little significance when compared to the more than 1000km of stream bed within the length of the streams tributaries²⁸¹. None of the diverted streams have any significant ecological value. All are potentially effected by being located in a production forest, some would dry up naturally on occasions, and the largest, the Wahianoa River, is effected on occasions by water contaminated by the crater lake.

²⁷⁹ Kennedy, rebuttal, paragraph 2.15.

²⁸⁰ Kennedy, rebuttal, paragraph 2.39.

²⁸¹ Transcript, page 1335.



[296] In cross-examination²⁸² Dr Cowie emphasised the relative insignificance of the aqueduct streams by saying:

....if I was to score streams on a scale of 1 to 10 in terms of ecological significance, those tributaries would be likely to score 1. They are that insignificant. They don't hold populations of native fish. They are very small. The Wahianoa itself is acidic at times. It is the largest of those streams. The fish that are present are small and stunted trout, which shows that it is not good quality habitat in that way. Other streams within the TPD I would score much, much more highly on a scale of ecological value than I would those Wahianoa streams.....the Tongariro River I would score 9 or 10, not just for ecology but for recreational opportunities. These streams are insignificant.²⁸³

[297] In re-examination by Mr Milne the following exchange summarised Dr Cowie's evidence.²⁸⁴

(Q) If the Wahianoa diversion were to be ceased and the water diverted into the Wahianoa River, would that have any beneficial effects for fish or fish habitats in the Wahianoa or the Whangaehu Rivers?

(A) You may create a little more habitat for rainbow trout in the Wahianoa River. That would be about all. Go down to the Whangaehu River, the addition of that extra water, some of it at low pH, to a river that already has a low pH at times, along with high conductivity, will have negligible effect on the pH of the Whangaehu River. It will obviously add a little bit of flow, but in terms of effects on water quality, fish and fish habitat, or invertebrates, I would say it would have no effect.

(Q) What would be the effects on indigenous fish species in the Wahianoa or the Whangaehu?

(A) None. There are no indigenous fish in the Wahianoa River. There are none recorded in the Whangaehu above a point about 15km above the Mangawhero confluence.

(Q) If one were to repeat that series of questions to you in respect of each of the other 21 diverted tributaries of the Wahianoa, would your answers be in any way different.

(A) For the tributaries that go directly to the Whangaehu River my answers would certainly be no different whatsoever. For the 2 or 3 that go to the Tokiahuru Stream, there would be a very slight benefit for flows in that stream.....with very, very little benefit whatsoever.

(Q) If all 22 diversions were to cease and all water returned to their natural flows, would there be some cumulative additional benefit.

(A) There would obviously be an increase in the Whangaehu River of about 3.3 cumecs. That would have very little effect on the pH of the river. Adding that extra water will have almost negligible benefit for the biota of the Whangaehu River.²⁸⁵

²⁸² Transcript, page 1347.

²⁸³ Transcript, page 1347.

²⁸⁴ Transcript, pages 1314-1316.

²⁸⁵ Transcript, pages 1314-1316.



[298] In rebuttal, Dr Cowie gave evidence to address Dr Wright's theory about the diverted waters possibly closing "a window of opportunity" for upstream migration of species such as eels and koaro (a species of eel). He told us, that both migrate into river estuaries in spring, when the Whangaehu River is likely to be just below or about neutral. It is highly probable that the fish avoid the acidic mainstem of the river by migrating into the Mangawhero River and its tributaries. He emphasised, that the Whangaehu River upstream of about the Mangawhero confluence is biologically dead. Insect life, relied on by fish for food, is almost entirely absent. Where there is no food there is no fish.²⁸⁶

[299] The evidence of the Ngati Rangi witnesses with regard to the depletion of fish in the Whangaehu and its tributaries was put to Dr Cowie. It is worth quoting this part of Mr Milne's re-examination.

(Q) The Members of the Court have referred to the evidence given by certain of the kaumatua witnesses about fisheries that were previously enjoyed.....does that evidence describe the situation that exists in the Wahianoa and Whangaehu, and their tributaries, today?.

(A) No,....nor does it describe the situation that was present in, say, the 10 or 20 years before the TPD was constructed. What we don't know is the situation before recorded history, perhaps going back to the middle of the last century. Prior to that, it may well have been that the Whangaehu was not a consistently acidic river.....(and) that fish such as eels and kaoro...did enter some of the tributaries. Prior to the TPD....we know that there were no native fish recorded, even eels, which might live 70, 80 years. We know that since the construction of the TPD there has been no change to that. I think the before and after analysis...is very conclusive,(and) the effects of the TPD on those fisheries that may have been there once upon a time is negligible.²⁸⁷

[300] Dr Cowie reiterated the information of a world-wide decrease in the eel population, and in answer to a question

If the resource consents authorising the diversion (of the aqueduct) were refused, would the indigenous fishery described by the kaumatua witness, re-establish?.

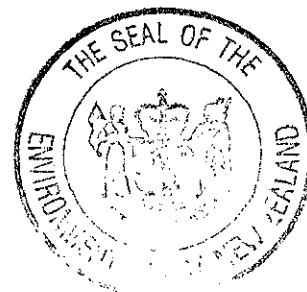
He replied:

Not in the current situation where the Whangaehu River is heavily contaminated by low pH water for substantial periods in most summers, and receives episodic lahar events.²⁸⁸

²⁸⁶ Cowie, rebuttal, paragraphs 25 and 26.

²⁸⁷ Transcript, pages 1317 and 1318.

²⁸⁸ Transcript, page 1318.



[301] Mr Ferguson further promoted the witnesses' evidence by referring to their experience in more recent times, certainly in the last 50 years. To which Dr Cowie answered,²⁸⁹

In terms of the last 50 years I think it is fair to say it (the evidence) doesn't gel very well.I am not so familiar with the period from the mid 1950s through to the beginning of the 1980s.... but it appears that there weren't any major lahars during that time. However, I come back to the point that if eels had successfully got into the rivers in, say, the last 50 years, you would still expect to find some there, because of the very long lived nature of long fin eels, in particular. They are not there, that suggests that there have been no, or at most, very, very few successful migrations of any individuals in that last 50 year period.²⁹⁰

[302] In answer to questions put to him by the Court, Dr Cowie said that Karioi is, perhaps, a generic name for the area and might well include the Mangawhero River tributaries, where native fish are still found. He also pointed out that, over the decades, there is every possibility that streams, that were present during the youth of the witnesses, had either dried up or had been naturally diverted and might now be a considerable distance from their remembered site.

Summary of ecological effects of the Eastern Diversion

[303] The customary evidence of the Ngati Rangi witnesses, regarding fish population within the rivers and tributaries of the Eastern Diversion, referred to the former abundance of fish in the streams of which they spoke. Regrettably the exact, or near exact, location of these fishing grounds was never specified and it is not possible for us to relate this evidence to that of the scientists whose evidence related much more closely to the TPD intakes themselves.

[304] Dr Wright expressed his disappointment that surveys of the lower reaches of the Whangaehu River were not carried out. He believed that such a survey might well have more accurately indicated any reduction in fish population, and possibly the reasons for it.²⁹¹

²⁸⁹ Transcript, page 1329.

²⁹⁰ Transcript, page 1329.

²⁹¹ Transcript, pages 925-926.



[305] Mr Kennedy in his 1998 survey recorded fish life above and up to 500m below the Wahianoa aqueduct. Woods in 1964 is presumed to have surveyed approximately the same area. There is certainly no evidence from Woods' tables to suggest he surveyed the lower reaches of the river.

[306] Since the findings of both surveys vary little, we do not believe any evidence from a survey downstream in the Whangaehu River would provide information that cannot be adduced from that of Mr Kennedy and Woods.

[307] Within the Whangaehu catchment, fish and invertebrates are, and historically have been, either absent or present in very low numbers well downstream.

[308] Further, there has been little or no variation of the type and density of native fish, below the intake area, in the 34 years between the surveys. In consequence, we are unable to conceive of circumstances that might result in a much altered fish population further downstream with the exception of volcanic or lahar activity, which would only cause a greater depression of the river's biomass.

[309] We have carefully listened to, and revised the customary evidence given to us by Ngati Rangi witnesses. We appreciate that the passage of time has altered the nature and content of their traditional waterways. We are unable to find in this evidence anything that specifically refers to the fish life of the tributaries of the Whangaehu River, much less the 22 tributaries that are intercepted by the aqueduct. There is general reference only to the Karioi region where, evidence suggests, there remains plentiful fish life in this part of the catchment.

[310] Because in the Whangaehu catchment fish and invertebrates are, and historically have been, either absent or present in very low numbers well downstream, the effects of the TPD diversions of headwater tributaries must be very minor at most.



The Moawhango River

(a) Effects on the water quality in the Moawhango River

[311] The construction of the Moawhango Dam in 1978 resulted in the truncation of the headwater catchment of the Moawhango River. Once the dam was built, the main tributary feeding the headwaters of the river was the Aorangi Stream. Dr Cowie told us, that this stream had a mean flow of 1.9 cumecs versus the average diversion from the headwater catchment of 9.6 cumecs, which equates to a 73% reduction in flow. He also told us that the Aorangi Stream rises and flows through land used for extensive agriculture, and as a result its water quality is slightly degraded.²⁹²

[312] Dr Cowie examined all the data held by the Council on water quality in the Moawhango River. Unfortunately, he said that information is of little value in ascertaining the effects of the TPD on water quality in the river²⁹³. He also referred to a report by Tonkin and Taylor (1999) which reports the results of an investigation into the effects of flow regulation on the Moawhango catchment. That report found that water quality was generally high, but that there was a small decline in water quality, reflected for instance in elevated levels of nutrients, downstream of the Aorangi Stream confluence, which Tonkin and Taylor considered reflected agricultural land use in that catchment.²⁹⁴

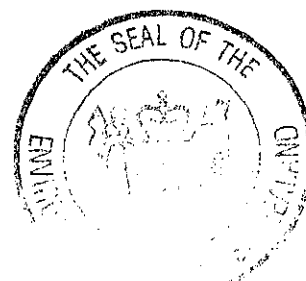
[313] Overall, Dr Cowie considered, that the information indicated that there is a minor adverse effect on water quality in the Moawhango River as a result of the diversion of its headwaters north to the Tongariro catchment. This minor effect he considered, will be mitigated to some extent by the new requirement on Genesis to provide for a minimum flow of at least 0.6 cumecs at all times. It was his view, that the construction of the Moawhango Dam has also led to some adverse effects on habitat quality in the river, particularly in its middle reaches around the Moawhango village. We accept Dr Cowie's conclusions.²⁹⁵

²⁹² Cowie, EiC, paragraphs 71 and 72.

²⁹³ Cowie, EiC, paragraph 73

²⁹⁴ Cowie, EiC, paragraph 76.

²⁹⁵ Cowie, EiC, paragraphs 77 and 78.



(b) **Effects on invertebrate communities**

[314] Dr Cowie told us that work carried out for Genesis by Dr John Stark, an expert in freshwater community ecology, showed that arguably there was some small effect on stream invertebrate communities below the Moawhango Dam. This was one of the factors that led to Genesis suggesting that a minimum flow of at least 0.6 cumecs be provided below the dam at all times.²⁹⁶

[315] Dr Cowie concluded that the imposition of a minimum flow has led to any such effects now being less than minor²⁹⁷. Again we accept Dr Cowie's conclusions.

(c) **Effects on fish populations**

[316] Dr Cowie told us that the Moawhango River has major natural barriers to upstream fish migration. There are two significant waterfalls in the lower reaches of the river, one of which is 15 metres high, and a series of waterfalls downstream of the dam. It was his opinion that these latter waterfalls apparently prevented eels migrating into the headwaters of the river prior to the construction of the dam.²⁹⁸

[317] According to Dr Cowie, who had studied a number of reports relating to the fish populations of the Moawhango River, the only fish present in the river above the dam prior to its construction were rainbow trout and brook trout. These populations are, he said, self sustaining and are still present today. Seven species were recorded below the dam, prior to its construction, five of which are still present. In his view the diversity and abundance are above average in comparison with similar New Zealand rivers²⁹⁹. Again we accept Dr Cowie's conclusions.

Summary of findings of effects on Maori

[318] The most damaging effect of both diversions on Maori has been on the wairua or spirituality of the people. Several of the witnesses talked about the people "grieving" for the rivers³⁰⁰. One needs to understand the culture of the Whanganui River iwi to realise

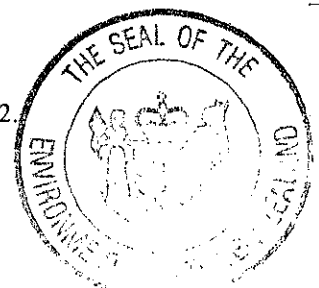
²⁹⁶ Cowie, EiC, paragraphs 80 and 81.

²⁹⁷ Cowie, EiC, paragraph 82.

²⁹⁸ Cowie, EiC, paragraph 83.

²⁹⁹ Cowie, EiC, paragraphs 85-87.

³⁰⁰ Ranginui, EiC, paragraph 48; Takarangi, EiC, paragraph 23; and Potaka, EiC, paragraph 22.



how deeply ingrained the saying *ko au te awa, ko te awa, ko au* is to those who have connections to the river. The iwi see the river as a part of themselves, and themselves as part of the river. Their spirituality is their “connectedness” to the river. To take away part of the river (like the water or river shingle) is to take away part of the iwi. To desecrate the water is to desecrate the iwi. To pollute the water is to pollute the people. The evidence of Mr Mareikura where he refers to comments by an elder Mr Taitoko shedding his tears bears repeating here:

...my river has been severed, the head has been cut – what is there left for me?³⁰¹

[319] Because the rivers have provided their needs for centuries, both Ngati Rangi and the Whanganui iwi see their rivers as their tūpuna and heritage. To take away part of their rivers is to take away part of their tūpuna and part of their heritage. To desecrate their rivers is to desecrate their ancestors. To pollute the water is to pollute their ancestors. For example Ms Metekingi said:

The awa is a beautiful thing. You need the people. It lives with the people. The spirit of the awa has to be the people. It is not a separate thing. It's part of who you are – like a soul partner; sharing everything with you and it gives it back to you.³⁰²

...

Our awa is not separate, it's all part of us. We can't be separated. You don't just send your eyes to the concert.³⁰³

[320] Many witnesses expressed their “connectedness” to the rivers and their ancestral relationship. We again repeat what Ms Ranginui said:

The river for me is like my mother and my father; as my grandfather and grandmother; it's my tūpuna. Irrespective of the condition of the river, the little water that remains is still my tūpuna. But its wairua (spirit) is dying.³⁰⁴

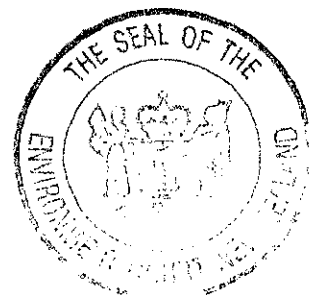
[321] We find that the TPD has had, and still does have, a significant effect on the Maori people – both the Whanganui iwi and Ngati Rangi. Clearly the loss of the headwaters of their rivers by foreign management has been like a scythe that has partly decimated the very central essence of their cultural being. This has been exacerbated by

³⁰¹ Mareikura, EiC, paragraph 2.13.

³⁰² Metekingi, EiC, paragraph 9.

³⁰³ Metekingi, EiC, paragraph 11

³⁰⁴ Ranginui, EiC, paragraph 45.



the peremptory and arbitrary manner by which the Tongariro scheme was implemented following the Orders in Council in 1958.

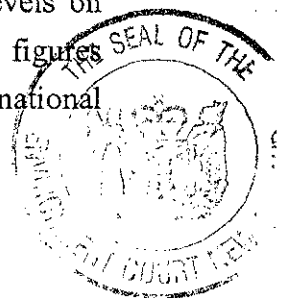
[322] As to the effects on the physical form of their rivers with its consequent effects on traditional practices, the customary evidence emphasised such things as, the decline in native fish numbers, the adverse effect on fishing practices and the loss of spiritual pools as a consequence of the water diversions. The expert witnesses called by Genesis were all strongly of the view that the TPD has had little physical effect, if any, on the rivers.

[323] With the exception of the effects occasioned by a reduction in flow and water level, we are satisfied from the extensive scientific evidence we heard that there is no evidential connection between the operation of the TPD and the decline in native fish life. Also, many of the physical effects on the rivers are caused by factors other than the TPD. In the overall context such physical effects are minor. The effects of the TPD are more greatly felt on Maori spiritual values.

[324] With regard to the effect on Maori spiritual values, and to a much lesser extent the effects caused by the reduced flow and levels of the waterways, we had some considerable difficulty in assessing those effects, raised by the Maori customary evidence, against the scientific evidence adduced by Genesis. We have no reason to doubt the veracity of the Maori witnesses. Equally, we do not doubt the sincerity and scientific accuracy of the Genesis witnesses.

[325] There appeared at times to be a conflict between the customary evidence and the scientific evidence. This apparent conflict intensified as the hearing progressed. The Maori witnesses who appeared before us, all impressed us with their close association and empathy with their rivers – an association and empathy which stems from many generations of living close to and with the rivers, and augmented by their ancestral interconnectedness with the rivers. The scientific witnesses had considerable knowledge about the rivers that came from empirical studies and data augmented by the application of recognised and tried methodologies and computerised modelling.

[326] Unfortunately, the two worlds did not link together – they did not intersect. While the scientific evidence addressed Maori concerns, it did so from a distance. For example, the evidence of Mr Potaka relating to the effect of reduced water levels on native fish and fishing was responded to: first, by Mr Bowler with his modelled figures JB1, JB2 and JB3; and secondly, by Mr Kennedy discussing the multi-factored national



decline of fish species. There has not been a direct meeting of the minds between the expert witnesses and the Maori witnesses, to establish with particularity, the locations and concerns that are of particular significance to iwi. It is only when that is done that both parties can explore the variety of options, that will assist in addressing values that require protection under Tikanga Maori.

[327] As an example we refer to the following exchange between a member of the Court and Dr Boubee:

- Q. In preparing your evidence, and indeed when you prepare a scientific report, you obviously carry out your own survey, but before doing that do you normally refer to earlier reports to find out the historical context of where you are going?
- A. Very much so. You look at – you try to look at all the information that has been published, or you know, in some cases, not published. We certainly looked at the fisheries database, and we looked at potential effects. And then decide where to go from there.
- Q. And do you limit that just to scientific reports?
- A. No.
- Q. Would you, for example, carry out inquiries or make inquiries, or find out from local fishermen whether they be...whether they be commercial fishermen or recreational fishermen?
- A. ... - if we are doing any fishing in any areas our permits require us to work in with the local authorities, for example the Department of Conservation, the Ministry of Fisheries.
- Q. Yes, I understand that, but what I am asking is do you find out as much information as you can from the people who fish the streams?
- A. We usually do, yes. Very much so.
- Q. Well, Mr Ferguson asked you a question if you had made any inquiries with the local Maori people, and you haven't?
- A. No I haven't, because – remembering that, you know, I was not commissioned to do the study as such in this area.
- Q. Would it have assisted you in your study if you had?
- A. If I was commissioned to go and do a survey on the Whangaehu River as such, yes I would definitely try to contact as many sources as possible.³⁰⁵

With regard to the Whanganui River he was asked:

³⁰⁵ Transcript, pages 1245-1246.



Q. That you made no inquiries of the Maori people as to their fishing practices and the history...

A. I have a long history of actually contacting some of the Whanganui people on that river. So, no, I have not contacted them directly as to where they were fishing but the evidence is quite evident that there were eels and there were species that could have been fished there, yes. There was plenty of information on that side about that.³⁰⁶

[328] We also refer to rebuttal evidence of Mr Kennedy where he said:

Dr Wright notes in paragraph 3.10 that I ignored tangata whenua in-stream values and uses. I consider it would have been inappropriate for me to presume what those values were as my evidence is **technical in nature**.³⁰⁷(emphasis ours)

And:

Although not qualified to address the healing powers of the water from a tangata whenua perspective, I am aware of various examples throughout the world where mineralised waters are used by humans. Set out below are the factors that affect water quality of the Whangaehu River in a **technical sense**.³⁰⁸(emphasis ours)

[329] In our view, if the scientific witnesses had met with and discussed with the tangata whenua witnesses the Maori concerns, they would have had a better appreciation of the particulars as to time, place, species of fish and spiritual practices that they say have been affected. They could have then addressed those issues with that understanding and then apply their expert scientific knowledge. It is only by a meeting of the minds between iwi and those legally responsible for the river's management, that decision-makers can identify adverse effects on such cultural issues as Mahinga Kai and mauri, and then put into effect appropriate strategies to remedy any adverse effects so identified. Unfortunately, and notwithstanding who was to blame, this was not done.

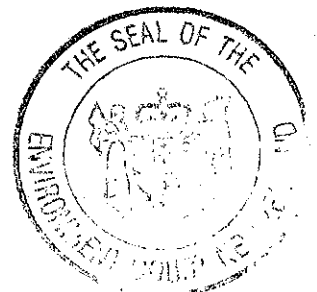
[330] It is this very practice that is recommended in "Flow Guidelines for Instream Values" Volume A, published by the Ministry for the Environment,³⁰⁹ a recommendation that we endorse

³⁰⁶ Transcript, page 1249.

³⁰⁷ Kennedy, rebuttal, paragraph 2.42.

³⁰⁸ Kennedy, rebuttal, paragraph 2.46.

³⁰⁹ Paragraph 13.2.4.



[331] After a careful consideration of all the evidence, we have come to the clear conclusion that the diversion of the waters by both the Western and Eastern diversions has had and continues to have deleterious effects on the cultural and spiritual values of the Maori people. We find that these effects are considerable.

Effect of TPD on national interest

(i) Electricity

[332] The strategic significance and economic importance of the TPD hydro electricity generating stations in contributing to the underpinning of the electricity supply system and the New Zealand economy, was stressed by several witnesses for Genesis.

[333] Genesis generates electricity from its generating assets which have a combined generating capacity of 1,600 MW, including the TPD, Huntly thermal power station, Waikaremoana hydro scheme, the Hau Nui wind farm, as well as a number of small generating plants including co-generation plants at the Te Awamutu dairy factory and the Kinleith pulp and paper mill. The major assets have an asset book value of approximately \$992m.

[334] The company generates electricity in competition with other companies for sale to the wholesale market and to meet the needs of retail customers who presently number some 500,000. Additionally it manages some 96,000 gas customers and provides an integrated service for households and businesses covering gas, electricity, toll calls and internet services.

[335] As a generator, wholesaler and retailer of electricity Genesis operates within a deregulated highly competitive market. The New Zealand Electricity Market, which is administered by the Marketplace Company, requires Genesis to offer to sell electricity at a specific wholesale price, volume and location for the 48 half hour trading periods for the coming day by 1pm on the day prior. Any failures to meet the offer requirements can result in substantial penalties to Genesis. Additionally Genesis offers hedge contracts, which fix the forward price of electricity to its commercial customers.



[336] Nationally the electricity sector comprises many organisations involved in the regulation, provision and usage of electricity. The Government has recently established an Electricity Governance Organisation called the Electricity Commission, a Crown Entity which is tasked with governing the electricity industry sector. Under an amendment to the Electricity Act 1992 the Parliamentary Commissioner for the Environment is required to examine the environmental performance of the Commission.

[337] Historically New Zealand's electricity generation system is based predominantly upon hydro resources which have provided between 60 and 70% of New Zealand's electricity per annum. The remaining 30 to 40% of electricity per annum is mainly provided by geothermal and thermal (gas and coal fired generation). Any shortfall in hydro generation in a dry year is made up by thermal generation. Since 1993, when the Clyde Dam was commissioned, there has been no substantial increase in the capacity of hydropower stations and thermal plants have provided the bulk of the increase in electricity required to meet demand. In this situation hydro power stations, such as those supported by the TPD, are considered to be an essential, if not crucial, basis of the New Zealand electricity sector.

[338] The TPD produces approximately 3.5% of New Zealand's annual energy demand in an average year, but including the contribution made through the Waikato River hydro stations, this rises to approximately 5% of New Zealand's average electricity demand. However, when operating on full capacity, this can increase to 9% on an instantaneous basis.

[339] The Rangipo and Tokaanu power stations supply an average of 1,220 GWh's³¹⁰ of electricity annually. In addition the water diverted into Lake Taupo, supplementing the nine hydro power stations and eight dams³¹¹ on the Waikato River, owned and operated by Mighty River Power Limited allows an extra 630 GWh's to be generated by these stations. This gives a total 1,850 GWh/yr or about 8% of national renewable energy. The court was told that this equates to sufficient energy to supply some 237,180 households, which represents a population approximately half the size of Auckland, five times the size of Hamilton or ten times the size of Rotorua, based on Statistics NZ 2001 Census.³¹²

³¹⁰ GWh means gigawatt hours.

³¹¹ Truesdale, EiC, paragraph 3.1.

³¹² Based on an average household consumption of 7,800 kWh/yr (ESANZ AD Jenkins Ltd Guide to Energy Units and Conversions 1997); Carroll, EiC, paragraph 5.6.



[340] Mr Dean Carroll, General Manager Generation and Trading Genesis Power Limited, who has been with the Company since its formation in 1999 said that in addition to the value of electricity generated by the TPD, the TPD provides several services that play an important role in maintaining the integrity of the national grid³¹³. These are voltage support³¹⁴, fine tuning of North Island frequency by Tokaanu Power Station, the ability to black start³¹⁵ independently of the national grid³¹⁶ and the ability of the Tokaanu Power Station to provide 'spinning reserve'³¹⁷ capacity with a very rapid response to cover unforeseen shortfalls in demand³¹⁸. The location and operation of the TPD makes it nationally important in these respects.

[341] We were also informed that the Tokaanu Power Station is an important source of reactive power³¹⁹. In this regard the power station provides essential support to the North Island transmission grid by boosting voltage on its path north during the day and reducing voltage at night as the load alters. Such dynamic support is crucial to the security of the national grid and in maintaining security of supply to the North Island.³²⁰

[342] Mr James Truesdale, an electrical engineer and Director of Concept Consulting Group which provides consultancy services to the energy sector, gave evidence for Mighty River Power Limited. His evidence stressed the importance of the TPD to the Waikato River hydro system. He said that on average the TPD diversions currently account for around 11% of annual Waikato Hydro system electricity production, which on average generates around 12% of annual national electricity demand, and therefore any reduction in the TPD diversions would have adverse economic and environmental consequences for New Zealand, in respect of its electricity requirements.³²¹

[343] Mr Truesdale highlighted some special characteristics of hydro supply, such as day-to-day and seasonal capability to increase electricity supply over peak demand periods, which limits requirements for more expensive generators and wholesale

³¹³ Carroll, EiC, paragraph 6.3.

³¹⁴ Dynamic (fast acting) reactive support essential to maintain a proper voltage profile under normal operation and contingent events; Carroll, EiC, paragraphs 6.4-6.9.

³¹⁵ The ability to start independently of the electricity transmission grid.

³¹⁶ Carroll, EiC, paragraph 6.13.

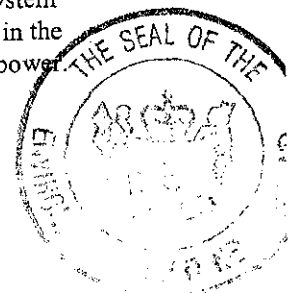
³¹⁷ The ability to pick up a block of generation assigned to another station if that station is, for any reason, unable to do so, or if there is a sudden outage elsewhere.

³¹⁸ Carroll, EiC, paragraph 6.11.

³¹⁹ Power transmitted to the load centre or generated there, in order to maintain the transmission system voltage. Is distinct from "active power" which can be equated directly with horsepower. Limited in the amount that can be transmitted, especially if the transmission lines are heavily loaded with active power.

³²⁰ Carroll, EiC, paragraph 6.9.

³²¹ Truesdale, EiC, paragraphs 3.1 to 3.4.



electricity prices at times of peak demand. Any loss of water currently diverted into the TPD and Waikato hydro systems would reduce this important capability of both hydro systems which would have cost implications for the New Zealand economy in addition to replacement energy costs³²².

[344] He estimated the cost of electricity supply to replace the energy supplied from the TPD and Waikato hydro system, resulting directly from the TPD diversions, over a 35 year period to exceed \$1.0 billion when discounted back to today's dollars.³²³

[345] For the purposes of his analysis Mr Truesdale assumed that investments in new supply capacity would need to be made earlier than otherwise; that extra thermal fuel would be required; that new thermal technologies would achieve significantly higher efficiencies than now; and that under its Kyoto commitments, New Zealand would face additional carbon costs from 2008 as a result of the extra fuel burnt at thermal power stations.³²⁴

[346] He also had regard for renewable technologies other than hydro, such as wind and biomass and noted that the costs of such developments are invariably high. In this regard he said that wind generation capacity in New Zealand is presently around 35 MW and on average represents around 0.4% of annual electricity demand.³²⁵

[347] He concluded that the economic and environmental consequences of any loss of water from the TPD and Waikato hydro systems is particularly significant with implications for New Zealand's competitive advantage and its Kyoto climate change commitments.³²⁶

[348] Mr Raymond Gatland, a consultant providing services to the electricity industry, highlighted the importance of a diverse hydro electricity resource to New Zealand and that any erosion of this resource, by increasing minimum flows, exacerbates any shortfall in dry year capacity.³²⁷

³²² Truesdale, EiC, paragraphs 7.1 to 7.5.

³²³ Truesdale, EiC, paragraph 7.1.

³²⁴ Truesdale, EiC, paragraph 7.1.

³²⁵ Truesdale, EiC, paragraph 6.14.

³²⁶ Truesdale, EiC, paragraph 8.4.

³²⁷ Gatland, rebuttal, paragraph 10.7.



[349] He also stressed the role of the four main thermal power stations at Huntly, New Plymouth, Otahuhu and Taranaki. Collectively these four stations are providing "swing generation"³²⁸ compensating for variations in rainfall and meeting the majority of new demand. Any reduction in average hydro generation, such as may result from an increase in regulatory spill from the TPD, will be made up through an increase in thermal generation.³²⁹

[350] He told us that, in 2003, for the first time, there was insufficient extra gas available from Maui to run all four of the large thermal stations at high outputs throughout the winter. Consequently, it is now proposed to run the New Plymouth station on oil which is understood will cost about 11c per kWh³³⁰ which is around twice the average wholesale electricity price. To provide additional output at Huntly, previously provided on demand by gas, it was necessary to fuel the station increasingly using coal. Genesis also obtained short-term resource consents to utilise oil burners in continuous operation to augment available gas and coal.³³¹

[351] Mr Gatland also highlighted the importance of retaining hydro electricity in order to maintain the base line for New Zealand's renewable energy target under the National Energy Efficiency and Conservation Strategy (an additional 30 PJ³³² of consumer energy from renewable sources by 2012). He also said that the practical reality is that the uptake of renewable energy options will rely on them being competitive with other alternatives and overcoming any other barriers discouraging their development.³³³ The ability of hydro to meet peak demands is a function which, for example, wind generation cannot fulfil.

[352] Mr Gatland said he was not aware of any government initiatives that would lead to the type of development that had estimated wind generation could provide approximately 23% of the country's electricity needs, or 7,900 GWh/yr, within 10 - 15 years at 10c per kWh, which equates to more than 2,000MW of new installed capacity. The Centre for Advanced Engineering had stated that this would be a difficult task requiring the construction of one turbine set being installed and got into operation each

³²⁸ Where thermal stations compensate for variations in rainfall and meeting the majority of new demand.

³²⁹ Gatland, rebuttal, paragraphs 7.1 to 7.5.

³³⁰ kWh means kilowatt hours.

³³¹ Gatland, rebuttal, paragraphs 11.4 - 11.6.

³³² PJ means petajoule - one PJ = 278 gigawatt hours.

³³³ Gatland, EiC, paragraphs 3.5 and 3.6.



working day of the year for the next 10 years. A difficult ask in Mr Gatland's opinion.
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[353] A recent 2002 summary, by the Ministry of Economic Development, forecast 390MW of new wind power by 2020 generating 1,400GWh/yr. This compares with around 36MW of wind power developed to date.³³⁵

[354] Wind power has a plant efficiency factor of 40% compared to around 95% for geothermal and 60% for hydro. But hydro has the flexibility to deliver 100% to meet peak loads³³⁶. The water storage, albeit limited within the TPD, enables the TPD to meet peak demands, a function wind cannot fulfil.

[355] According to Mr Gatland the actual mix of generation that will develop over the long term is uncertain but the major determinant in the evolving blend will be the cost of new thermal generation, and this will significantly influence the uptake of renewables. However, as Mr Gatland said:

.... under any future situation, the existing hydro generation base underpinning our supply system will continue to be of vital importance, and significant thermal generation will be required to make the most of this hydro energy³³⁷

The key issue is that if flows of the Western Diversion are lost to the TPD and the stations on the Waikato, the consequences are the cost of the additional fossil fuel burnt every day, the advancement of investment in the construction of new thermal power stations, and the additional emissions of greenhouse gas as well as the loss of a renewable source of electricity generation.³³⁸

[356] On behalf of Ngati Rangi, Ms Marian Melhuish, an independent energy analyst, took issue with the evidence of Messers Carroll, Gatland and Truesdale and expanded her written evidence by way of verbal interpolations which were later admitted in evidence as written text.³³⁹

[357] Her evidence was to the effect that Genesis and Mighty River had demonstrated no active promotion of energy and economic efficiency; the Genesis request for a 35 year term is not appropriate; ECNZ's management of the TPD is based on a narrow set of 'national benefit' principles as defined by Western cultural values - which, since 1986,

³³⁴ Transcript, page 615.

³³⁵ Gatland, EiC, paragraphs 3.8 and 3.9.

³³⁶ Gatland, EiC, paragraph 3.10.

³³⁷ Gatland, EiC, paragraph 9.3.

³³⁸ Gatland, EiC, paragraph 9.6.

³³⁹ Transcript, page 964 and additional evidence received 26.11.03.



now included a Western corporate culture which treated river flows as a commodity to be brought and sold for profit, and which has led electricity companies to be more dismissive of environmental, social and cultural impacts in their management of the electricity industry.³⁴⁰

[358] Ms Melhuish was also of the view that promotion of alternative energy supplies, distributed generation and managing growth in electricity demand should be by way of promoting energy efficiency and active demand side participation in the electricity market. This was as proposed by the Parliamentary Commissioner for the Environment. She said that the consents should contain conditions for continuing consultation with the affected iwi, on flow management regimes, to ensure commercial values are balanced equally with cultural and spiritual values.³⁴¹ She was also of the view that there should be conditions that provide for significant funding for energy efficiency projects that benefit low income households and marae.

[359] Ms Melhuish was especially critical of corporatisation of the electricity market with participants consistently promoting large-scale power generation and transmission and ignoring sustainable energy options – both small-scale renewable energy supply and energy efficiency and other “demand side” options.³⁴²

[360] Ms Melhuish considered that granting even a 10 year consent term would be generous indeed to the applicants in the rapidly changing electricity industry and its regulatory environment.³⁴³

[361] In support of her arguments Ms Melhuish referred to the new Energy Commission to replace industry self-governance, and a two-part discussion document by the Parliamentary Commissioner for the Environment, “Electricity, Energy and the Environment” June 2003. This latter document proposes assessing the environmental performance of the electricity industry on an annual basis and to manage growth in electricity demand by promoting energy efficiency and active demand side participation in the electricity market taking into account the concerns of Maori. However, while the document provides useful background information, it is open for discussion at this stage and its findings and proposals are not binding on us.

³⁴⁰ Melhuish, EiC, paragraphs 2.3 and 3.22.

³⁴¹ Melhuish, EiC, paragraph 7.4.

³⁴² Melhuish, EiC, paragraph ?

³⁴³ Melhuish, EiC, paragraph 7.4.



[362] Ms Melhuish also appended to her evidence the document "Electricity Supply and Demand to 2015".³⁴⁴ She referred to this document as supporting the multiple benefits of distributed generation, from small scale power generators embedded in local networks, as an alternative to supply from large power stations, claiming a potential availability of 750MW of distributed generation within 12 years³⁴⁵. This document also contained much useful information but, similar to the Parliamentary Commissioner for the Environment's document, its findings and proposals are not binding on us.

[363] Ms Melhuish's additional statement of evidence related to the potential for capturing hydro energy within the Whangaehu catchment (the "Karioi power scheme"), as an alternative to what she calculated to be a 40% loss of water energy within the Wahianoa Aqueduct prior to it being utilised through the Rangipo power station, and her views on cost effective energy efficiency and renewable energy enhancements as an alternative to building new power stations.³⁴⁶

[364] In rebuttal Mr Drinkrow, for the applicant, demonstrated how Ms Melhuish's additional evidence, as it related to the Eastern Diversion, was based on a number of errors, both in terms of how the TPD operates and how the water from the Eastern Diversion is managed and used for electricity generation.³⁴⁷ He stated that Ms Melhuish had also failed to recognise the national strategic importance of being able to store water from the Eastern Diversion in Lakes Taupo and Moawhango, and use it in 10 separate power stations.³⁴⁸

[365] He considered that her calculations of energy losses were flawed for two principle reasons: firstly, the purpose of the aqueduct is to supply water for storage rather than as a run of river flow to Rangipo Power Station; and secondly, that the minimum flow losses are not associated with the Wahianoa water but rather they are mitigation for the water taken from the Moawhango and Tongariro Rivers and these losses would exist irrespective of whether or not the aqueduct was present.³⁴⁹

³⁴⁴ Jointly published by Sinclair Knight Mertz and the Centre for Advanced Engineering (CAE) 6th Ed. 2002.

³⁴⁵ Melhuish, EiC, paragraphs 3.5 and 3.6.

³⁴⁶ Melhuish, additional statement, page 2.

³⁴⁷ Drinkrow, rebuttal, paragraph 1.4.

³⁴⁸ Drinkrow, rebuttal, paragraph 4.2.

³⁴⁹ Drinkrow, rebuttal, paragraph 3.3.



[366] According to Mr Drinkrow, Ms Melhuish's postulated run of the river "Karioi power scheme" is entirely undefined, even conceptually, and the environmental effects have not been addressed. Even if it were able to supply some generation, all of the strategic benefits of being able to store water in Lakes Moawhango and Taupo and utilise it in 10 power stations would be lost. Mr Drinkrow went on to say:

The water diverted via the Wahianoa Aqueduct (mean flow of 3.3 cumecs) is able to be utilised at both the Rangipo and Tokaanu Power Stations of the TPD and then again at 8 more hydro-power stations on the Waikato River, namely Aratiatia, Ohakuri, Atiamuri, Whakamaru, Maraetai, Waipapa, Arapuni and Karapiro. Water from the Eastern Diversion is the only water in New Zealand able to be utilised in 10 separate power stations. As such, it is recognised as being the most important water in the country.³⁵⁰

Mr Drinkrow also said that:

Ms Melhuish has similarly failed to appreciate the exceptional efficiency at Rangipo Power Station that requires a flow of only 0.51 cumecs to generate 1 MW of electricity. This is in contrast to the undefined, conceptual Karioi Power Scheme proposed by Ms Melhuish that has no storage, limited generation potential, no national strategic benefits, unknown environmental effects and any number of technical and operational constraints.³⁵¹

[367] In his closing submissions for Mighty River Power Limited Mr Cowper submitted that:

In the broader context, Ms Melhuish was dismissive of the value of hydro electricity, and seemed to think that increasing power prices would bring with them a range of alternative supply options. That approach has an element of truth, but does not adequately consider the implications for New Zealand. Higher electricity prices will also reduce our international competitiveness, as Mr Truesdale showed. And the higher prices actually emphasise the increasing value of the cheap electricity provided by the TPD. Further, Ms Melhuish did not adequately explain what would replace any lost TPD (and Waikato) hydro generation. If all her demand side energy efficiency measures could stop further growth in demand, the evidence was that New Zealand currently derives about 30% of its supply from thermal sources: any reduction in hydro supply would therefore be met by an increase in thermal generation.³⁵²

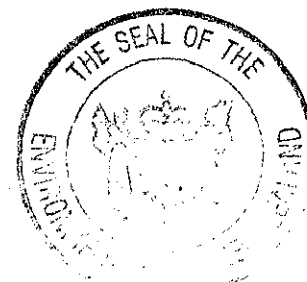
[368] For the Respondent, Mr Milne submitted:

Ngati Rangi contend that uncertainties in the electricity generation market mean a duration of 10 years is appropriate, as at the conclusion of that time there may be alternative forms of generation that reduce the national reliance on hydroelectric generation.

³⁵⁰ Drinkrow, rebuttal, paragraph 2.4.

³⁵¹ Drinkrow, rebuttal, paragraph 4.3.

³⁵² Closing submissions for Mighty River Power, paragraphs 5.17-5.19.



It is submitted that the overwhelming expert evidence before the Court on that matter as presented by Mr Truesdale (for Mighty River Power) and by Mr Copeland, Mr Gatland and Mr Carroll (for Genesis) was that exactly the opposite situation would apply. With the rundown in Maui gas, and the high cost (financial and environmental) of alternative forms of power generation such as wind and coal, the national importance of hydroelectric generation capacity in 10 years time will be even more substantial than it is now.³⁵³

Assessment and findings on electricity

[369] Much of Ms Melhuish's evidence provided an alternative point of view to that of the applicant, but we would not go so far as to agree that Ms Melhuish was dismissive of the value of hydro electricity but rather that she holds the view that because the era of cheap hydro electric power is over, a more sustainable economy – financially, socially, environmentally and culturally – could be achieved through energy conservation and utilising smaller scale renewable energy sources.

[370] While, much of what Ms Melhuish says may have an element of truth, Mr Carroll has variously described her assertions as not being realistic, speculative and uncertain. We note that her apparent support for demand side energy efficiency measures are, according to the Centre for Advanced Engineering, ... *not likely to reduce electricity consumption by 10% or more without, in addition to other factors, major disruption to the economy and peoples lives.*

[371] As Mr Drinkrow demonstrated, Ms Melhuish's evidence as it related to the Eastern Diversion was based on a number of errors, both in terms of how the TPD operates and how the water from the Eastern Diversion is managed and used for electricity generation. Mr Drinkrow also demonstrated how Ms Melhuish's postulated run of the river "Karioi power scheme" and her calculations relating to the efficiency of hydro generation from the Wahianoa Aqueduct were flawed.

[372] We accept the evidence of Mr Carroll, Mr Truesdale and Mr Gatland as to the strategic significance and value of the TPD hydro electricity generating stations in contributing to the hydro stations on the Waikato River and underpinning the electricity supply system of New Zealand.

³⁵³ Closing submissions for Respondent, paragraphs 13 and 14.



[373] We are also mindful of the statement in the Parliamentary Commissioner for the Environment's publication that reminds us of the vulnerability of the national transmission grid to the effect that if key lines should fail a critical failure of the system could result. Also long transmission distances mean that significant transmission losses occur³⁵⁴. This further stresses the strategic location and importance of the TPD to the national power supply system.

[374] It is accepted from the evidence that the TPD has strategic significance and value, particularly in relation to its location and special functions in the electricity system for voltage support, frequency control, black start and provision of spinning reserve and for meeting peak loads.

(ii) Economy

[375] Mr Michael Copeland, a consulting economist of Wellington, gave evidence for Genesis which considered the economic costs to New Zealand from the loss of hydro electricity generation if further additional constraints are imposed on the supply of water to the TPD³⁵⁵. His evidence was based on the modelled average annual potential generation of 1,435GWh/yr and used an average price of 4.5 cents/kWhr and an average household consumption of 7,800 kWh/yr, assuming the 2001 resource consent conditions were operative. His evidence also took into account the further power that would be lost by the Waikato River power stations, from the reduction in 'foreign' water diverted into Lake Taupo (and hence the Waikato River) by the TPD.³⁵⁶

[376] Mr Copeland concluded that environmental constraints to date, including the 2001 resource consent decisions, would result in approximately 486 GWh of lost generation annually by both the TPD and Waikato Scheme and that is enough power to supply 62,300 households³⁵⁷. This equates to an annual economic loss of \$21.87m.

³⁵⁴ Electricity, Energy and the Environment. Part A: Making the Connections. Parliamentary Commissioner for the Environment Report, June 2003, page 10.

³⁵⁵ Copeland, EiC, paragraph 2.1.

³⁵⁶ Copeland, EiC, paragraph 4.2.

³⁵⁷ Copeland, EiC, paragraph 5.16.



[377] Mr Copeland went on to say that the potential average loss in electricity generation from the closure of the Wahianoa Aqueduct would be an additional 180 GWh/yr affecting 23,100 households and equate to a loss of \$8.1m³⁵⁸ in today's terms; from the closure of the Whanganui River intake the additional average potential loss would be 45 GWh/yr and 5,800 households equating to a loss of \$2.0m,³⁵⁹ and closure of the Western Diversion would result in an additional average potential loss of 629 GWh/yr affecting 80,600 households equating to a loss of \$28.3m.³⁶⁰

[378] According to Mr Copeland if the above losses were accumulated a loss in generation of between 531 and 1,115 GWh/yr would result in an economic loss of between \$23.9m and \$50.2m per year. But, if all appeals were upheld, a loss in generation of 1,359 GWh/yr affecting 174,000 households would be equivalent to an economic loss of \$61.2m per year in today's terms.³⁶¹

[379] Based on an average nodal price of 7 cents per kWh the cumulative economic efficiency losses would increase to \$34.0m per year by 2011 as a result of the environmental constraints up to and including the 2001 resource consent decisions. This figure would increase to \$95.1m per year if all appeals were to be upheld.³⁶²

[380] Mr Copeland advised the Court that, according to Genesis, the estimated cost to construct a similar development as the TPD, in today's dollar terms, would be at least \$1.5 billion.³⁶³

[381] When questioned by Mr Ferguson on portraying the economic impact to Genesis in terms of gigawatt hours and dollar figures, Mr Copeland confirmed that the amounts identified are the bottom line impacts on Genesis in the first instance. However, they flow through to national economic consequences, since if Genesis profits are reduced the tax and dividend payments to the New Zealand government are reduced. That flows

³⁵⁸ Copeland, EiC, paragraph 5.13.

³⁵⁹ Copeland, EiC, paragraph 14.

³⁶⁰ Copeland, EiC, paragraph 5.15.

³⁶¹ Copeland, EiC, paragraphs 5.16 and 5.17.

³⁶² Copeland, EiC, paragraph 5.18.

³⁶³ Copeland, EiC, paragraph 4.1.



on to either increased taxation or a reduction of government services with ongoing consequences for our economy.³⁶⁴

He said:

If Genesis doesn't produce that power then some other New Zealand entity has to produce the power or else people in New Zealand have to do without it. Now if some other entity has to produce it there is an additional cost -- **at least equal to the amount that I have identified**. So someone else, if you like, is incurring that cost and that additional cost is either reducing the profits of other electricity distributors or it is being added on to the price that electricity consumers have to pay.³⁶⁵ [our emphasis]

[382] On the question of any loss of generation by the TPD being produced elsewhere in New Zealand, Mr Copeland was of the view that there will be a cost incurred in producing that electricity elsewhere,*so there is an incremental cost there which has to be identified.....any comparison between environmental effects versus those extra costs is something which will have to be traded off*. Mr Copeland made the point that the cost of building the TPD has been incurred and*even if we haven't paid it off, we can't sell it... we can't cash in on the capital which has been put in place... it is what economists call a sunk cost and with the TPD because of its large sunk cost, the future costs of generating electricity are effectively zero.*³⁶⁶

Assessment National Economy

[383] The evidence that Mr Copeland presented was based on the potential average annual energy generated from the TPD as opposed to the record of the actual average energy generation³⁶⁷. Under questioning, Mr Bowler confirmed that the actual generation was somewhat less than the total potential generation given by the modelling results.³⁶⁸

[384] Mr Copeland acknowledged, in answer to a question from Mr Ferguson,³⁶⁹ that monetary losses based on a modelled average potential power generation scenario of 1,435 GWh/yr would not be as valid or legitimate as using the actual_record of average

³⁶⁴ Transcript, page 555.

³⁶⁵ Transcript, page 555.

³⁶⁶ Transcript, pages 566, 568, 570 and 563.

³⁶⁷ Bowler, EiC, paragraphs 4.9 and 4.10.

³⁶⁸ Transcript, page 1362.

³⁶⁹ Transcript, page 560.



annual generation from the TPD power stations of 1,263 GWh/yr (or 1,246 GWh/yr, using Bowler's updated figures which are about 13% more or less than the modelled potential generation).

[385] It therefore follows, that Mr Copeland's assessments of economic effects on the power companies and the national economy and households effected, consequent on the constraints on the supply of water to the TPD, are somewhat overstated, probably in the order of 13%, more or less. This, we hasten to add, is no reflection on Mr Copeland as we understand he was relying on the figures for generation which were supplied by the applicant.

[386] We accept that both Genesis and Mighty River Power would be considerably affected should the supply of water to the TPD be further restricted and there would be a flow on effect to the national economy. The extent of any losses incurred by the respective companies would be proportional to the degree of restriction, if any.

[387] In response to a request from the Court the applicant advised that, based on a conservatively assessed real cost of generation from the TPD and Mighty River Power over the last three years of 6.3 cents/kWh, the release of one cumec from the Wahianoa A aqueduct would result in the loss of 54.5 GWh/yr of generation to the TPD and MRP at a cost of \$3.5m and 7,000 households would be affected.

[388] Similarly, on the basis of the same unit cost, if one cumec was lost from the Western Diversion 37.3 GWh/yr of generation would be lost to the TPD and Mighty River Power, at a cost of \$2.4m and 4,800 households would be affected.

[389] If these losses were combined a total 91.8 GWh/yr of generation would be lost to the TPD and MRP at a loss of \$5.9m, with 11,800 households being affected. This represents about 0.24% of New Zealand's present annual electricity energy requirements.

Landscape and Natural Character

[390] During the course of the hearing, we heard evidence about the effect of the TPD on the sensitive landscape within which it is situated. Because of the landscape's sensitivity and the criticisms levelled at Genesis' landscape assessment we feel it is necessary to discuss this evidence.



[391] Mr Frank Boffa, a Landscape Architect and Director of Boffa Miskell Ltd, gave landscape evidence on behalf of Genesis. He focused on the effects of structures and the associated physical modifications to the landscape, and the general amenity values of the Eastern and Western Diversions of the TPD. Mr Boffa did not discuss the tangata whenua dimension, although he believes their values to be extremely important considerations.

[392] Leading from section 6(b) of the Resource Management Act, providing for *the protection of outstanding natural features and landscapes from inappropriate subdivision, use and development*, Mr Boffa believes it is important to place the effects on natural character and features into the context of the years that have elapsed since the construction of the TPD. In his opinion the streams and landscape have adapted to the scheme, and assessment of natural character must, therefore, acknowledge the environments that are now present.³⁷⁰

[393] In a specific evaluation of the 'landscape character areas' of the Western Diversion he concluded that the intakes and canal system had some effects, but did not feel they were out of keeping with the area's natural character, and that significant amenity benefits have accrued to the area as a result of the trophy trout fishing that has developed.³⁷¹

[394] Of the Eastern Diversion, following a similar appraisal of each structure and area, he concluded that all effects were no more than minor, although he did recommend that the sediment dumps could be more sensitively managed³⁷². From a land use perspective, Lake Moawhango was a distinctive landscape element and an attractive feature of the landscape.³⁷³

[395] Having completed the assessment of the individual landscape character areas he said:

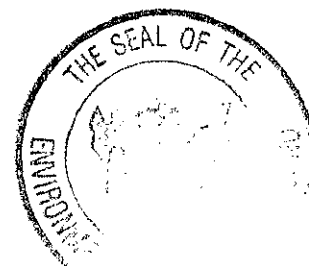
Visually the TPD scheme is well contained and in most instances the component elements of the project are not generally visible to the public at large, or residents within the area. I suspect most non-recreational visitors would pass through the area with little or no realisation that the TPD scheme exists. I consider the TPD scheme to have been well planned and sited with minimum adverse physical

³⁷⁰ Boffa, EiC, paragraph 2.6.

³⁷¹ Boffa, EiC, paragraph 4.17.

³⁷² Boffa, EiC, paragraph 5.4.

³⁷³ Boffa, EiC, paragraph 5.14.



landscape effects. I also consider the project has been well integrated within a high quality, diverse and sensitive natural landscape.³⁷⁴

[396] In regard to this summary Mr Boffa was questioned by Mr Ferguson, who asked:³⁷⁵

(Q) In terms of tangata whenua values, for example, if it is the firmly held cultural view of tangata whenua groups that a waterway should not be diverted then the issue of whether the waterway is accessible or not doesn't mitigate whether in fact the water is diverted or not, does it? It is the mere fact that diversion, regardless of where it occurs impinges upon that view, or that value

(A) As I have said, tangata whenua values are certainly important and should be seen as part of any mitigation or enhancement package.....But until the values are clearly articulated in terms of what they are, where they are, and what the significance of their importance is, I am in no position to say.

And later when questioned by the Court³⁷⁶

(Q) Are you saying that when you wrote your evidence you did not have the cultural values identified by the tangata whenua.

(A) I didn't have them, no, or they were not available.

(Q) Having received the evidence of the relative tangata whenua – have you read the evidence that has been adduced by them?

(A) Yes, I have.

(Q) Did you find anything relevant so far as cultural values are concerned in that evidence, so far as your assessment of landscape is concerned?

(A) I didn't find anything, your Honour, that would change my assessment and I didn't find anything specific enough that I could usefully offer any suggestion in terms of enhancement or mitigation that might help in mitigating any effects.

In his 'Conclusions' Mr Boffa said:

The more significant landscape effects are those associated with variable river and stream flows. While the perceptual effects of these are quite apparent above and below some of the major in river and stream structures, the effects downstream are not as apparent, particularly if one was generally unfamiliar with the original flow regimes.....³⁷⁷

Genesis has proposed flow releases and minimum flows in the Moawhango River, the Whanganui River and the Mangatepopo Stream. In my opinion these increased flows will enhance the natural appearance and character of these watercourses.³⁷⁸

³⁷⁴ Boffa, EiC, paragraph 3.7.

³⁷⁵ Transcript, page 520.

³⁷⁶ Transcript, page 540.

³⁷⁷ Boffa, EiC, paragraph 7.2.

³⁷⁸ Boffa, EiC, paragraph 7.3.



[397] Mr Alan Titchener a landscape architect called by Ngati Rangi, gave evidence. His evidence was, regrettably, largely a critique of Mr Boffa's evidence as it related, or did not relate, to tangata whenua matters, and only in regard to the Eastern Diversion. We cast no blame on Mr Titchener for this, we understand that his instructions and the finance to cover the work and the time available, were limiting factors in the amount of field work that could be undertaken. However, the absence of a comparable assessment did not give the Court the opportunity to make a comparison which may have given us a practical assessment of those values most likely to represent the iwi's point of view. Mr Titchener was very critical of Mr Boffa's failure to personally consult with tangata whenua, despite Mr Boffa admitting, in his evidence-in-chief, that he did not feel that he had the necessary understanding to discuss Maori cultural and spiritual association with his basic landscape assessment. He told the Court that all the work he did was given to, and used by, Genesis in their discussions with the tangata whenua.

[398] Mr Titchener gave us the definition of 'landscape' that he believes is the most appropriate, namely; 'Landscape is the relationship between natural and human landscape patterns, human experience and perception of these patterns, and meanings associated with them'³⁷⁹. It was the failure to incorporate the "human landscape pattern" that he felt was most at fault with Mr Boffa's evidence. It is clear he said:

that the consideration of cultural factors and in particular the value of landscape to tangata whenua is an essential consideration in a landscape assessment. In few landscapes of New Zealand is this more relevant than in the subject landscape which deals with a sacred ancestral mountain of the highest spiritual and cultural value and the land and waters associated with it.³⁸⁰

Mr Titchener, for his own part, said

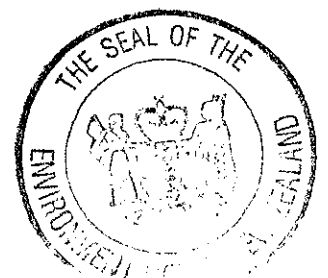
I do not purport in any way to speak for Ngati Rangi Iwi on tangata whenua values and I respectfully defer to Ngati Rangi authorities in this area.³⁸¹

[399] It is regrettable that nowhere else in their evidence did the iwi make any reference to their own feelings on landscape matters.

³⁷⁹ Titchener, EiC, paragraph 4.1.

³⁸⁰ Titchener, EiC, paragraph 7.1.

³⁸¹ Titchener, EiC, paragraph 7.3.



Summary

[400] In respect to the evidence available to the Court on landscape matters, we accept the evidence of Mr Boffa, that from a purely physical and visual point of view, the TPD effects on the landscape environment are of a minor nature. Having said that we understand, as does Mr Titchener, that this is only a part of the story. As a Court we have some understanding of the way the Maori people regard the maintenance of the pristine nature of their environment, which carries with it a continuity of the spiritual and cultural association they have always had with their land. We reiterate our disappointment at not being given the opportunity to have a more in-depth account of the tangata whenua's feelings regarding what they see as the desecration of their traditional lands by the TPD structures.

Balancing conflicting interests under the RMA

[401] We have found that the TPD makes a significant contribution to the hydro electric production of New Zealand. Its infrastructure, with its "sunk-costs" and existing capacity to produce 360MW – not to mention the re-use of the water down the Waikato River – reflects its contribution to the New Zealand economy. More importantly, any constraining by way of further releases of water down the streams and rivers affected by the diversions, will result in loss of hydro generation with significant economic implications as earlier discussed in this decision.

[402] Clearly, it is in the national interests for the TPD structure to be as fully utilised as possible. The water and the waterways, utilised by the TPD, can in an average year and in the absence of providing any flows for environmental reasons, produce 1,801 GWh/yr of electricity³⁸². The potential generation has been reduced as a result of environmental constraints to a potential annual generation of 1,437 GWh/yr. In reality, the actual average annual generation for the period 1989 to 2003 was only 1,246 GWh/yr – the difference being that not all available water can be diverted all the time.³⁸³

³⁸² Bowler, EiC, paragraph 4.9.

³⁸³ Bowler, EiC, paragraph 4.10.



[403] The current situation (prior to these new resource consents becoming operative) has resulted in the spillage of water for environmental reasons such that approximately only 82% of the potential generation is able to be achieved³⁸⁴. We are thus conscious of the effect of further eroding the available water that can be used.

[404] That the current situation provides for the release of water for environmental reasons, reflects the need to balance the national interest demands against the necessity of sustaining the environment. We also note that the environmental constraints to date have not been primarily imposed to mitigate Maori concerns. As we have said, the minimum flow regime is primarily to mitigate the effects of the diversion of the waters on such matters as: the natural character of the rivers and streams; the physical and biological environment; and the protection of indigenous habitat such as native and trout fisheries and of the blue duck.

[405] We have also found that to grant consent, as sought, would have a significant effect on Maori. To the Maori people, their tūpuna awa have been and continue to be taonga of central, material and spiritual significance. The importance of the river's place has been central to their cultural identity, as demonstrated by the years' of protest and litigation which has, according to both the Waitangi Tribunal and Mr Taiaroa, continued almost unabated for over a century.³⁸⁵

[406] We are mindful of our responsibilities to consider as directed, the provisions of sections 5, 6(e), 7(a) and 8 of the Act. In *TV 3 Network Services v Waikato District Council*³⁸⁶ the High Court had this to say of those sections:

The importance of these sections [ss.5, 6(e), 7(a) and 8] should not be underestimated or read down. For, they contain the spirit of the new legislation.

[407] More recently, when delivering the judgment of the Privy Council in *McGuire v Hastings District Council*³⁸⁷ Lord Cooke of Thorndon made reference to the single broad purpose of the Act; then emphasised, that in achieving that purpose, the authorities concerned (which includes the Court) are bound by certain requirements, including requirements, of particular sensitivity to Maori issues. He said:

³⁸⁴ Copeland, EiC, paragraph 5.3

³⁸⁵ Whanganui River Report, Executive Summary, XVIII; Taiaroa, EiC, paragraphs 8-12.

³⁸⁶ [1998] 1 NZLR 360.

³⁸⁷ [2002] 2 NZLR 577.



Section 5(1) of the RMA declares that the purpose of the Act is to promote the sustainable management of natural and physical resources. But this does not mean that the Act is concerned only with economic considerations. Far from that, it contains many provisions about the protection of the environment, social and cultural well-being, heritage sites, and similar matters. The Act has a single broad purpose. Nonetheless, in achieving it, all the authorities concerned are bound by certain requirements and these include particular sensitivity to Maori issues. By section 6, in achieving the purpose of the Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for various matters of national importance, including "(e) The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu (sacred places) and other taonga (treasures)". By section 7, particular regard is to be had to a list of environmental factors, beginning with "(a) Kaitiakitanga [a defined term which may be summarised as guardianship of resources by the Maori people of the area]". By section 8, the principles of the Treaty of Waitangi are to be taken into account. These are strong directions to be borne in mind at every stage of the planning process. The Treaty of Waitangi guaranteed Maori the full exclusive and undisturbed possession of their lands and estates, forests, fisheries and other properties which they desired to retain. While as already mentioned, this cannot exclude compulsory acquisition (with proper compensation) for necessary public purposes, it and the other statutory provisions quoted do mean that special regard to Maori interests and values is required in such policy decisions as determining the routes of roads. Thus, for instance, the Lordships think that if an alternative route not significantly affecting Maori land which the owners desire to retain were reasonably acceptable, even if not ideal, it would accord with the spirit of the legislation to prefer that route. So, too, if there were no pressing need for a new route to link with the motorway because other access was reasonably available.³⁸⁸

[408] We are mindful that the provisions relating to Maori issues must be balanced with the other provisions of Part II, to give effect to the single broad purpose of the Act. They are not to be raised to the status where they are tantamount to the exercise of an exclusionary veto – that would be impermissible.³⁸⁹

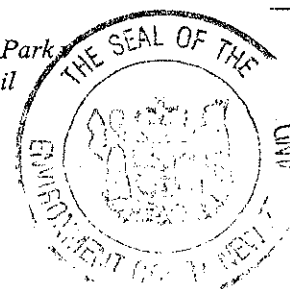
[409] We are equally as mindful of the weighty consideration we must give to matters and considerations of national benefit as demonstrated in the High Court judgment in *New Zealand Rail*. The High Court said:

...questions of national importance, national value and benefit, and the national needs, must all play their part in the overall consideration and decision.³⁹⁰

³⁸⁸ *McGuire v Hastings District Council* (2002) 2 NZLR 577, paragraph 21.

³⁸⁹ See *TV3 Network Services; Minihinnick v Watercare Services Limited* (3 September 1997) HC Auckland, HC 86/97.

³⁹⁰ *NZ Rail Ltd v Marlborough District Council*, [1994] NZRMA 70 HC at 86; see also *Elderslie Park Timaru District Council* [1995] NZRMA, 433; *Transit New Zealand v Auckland Regional Council* (A100/2000); *Holdings v Marlborough District Council*



[410] Central to our determination is that the RMA has a single purpose. Consistent with that, sections 6 to 8 are subordinate and accessory to the primary and principal purpose of the Act.

[411] Having referred to the Part II matters that reflect matters of Maori sensitivity it is not necessary for us to dwell on each subsection. This was not done by Mr Ferguson on behalf of the Maori appellants. No particular emphasis was given to any subsection and, indeed, there was no dispute by counsel as to their applicability – as with the other Part II matters – and the relationship between section 5 and sections 6, 7 and 8.

[412] Part II provisions containing requirements of particular sensitivity to Maori issues, are accessory to and inform the single purpose of the Act as set out in section 5 – in particular the imperative to manage physical resources in a way or rate, which enables “...people and the communities to provide for their...cultural well-being”. While all cultures have to be considered, in appropriate cases we are bound, in achieving the broad purpose of the Act, by those requirements to have particular sensitivity to Maori issues.

[413] Section 6(e) of the Act is particularly relevant in this case, because of the evidence we heard – much of it uncontested – of the cultural and traditional relationship of the Maori appellants with their ancestral waters. Section 7(a) is also relevant because of the evidence we heard – again uncontested – of the Maori appellants kaitiaki responsibility to protect the spiritually significant dimensions of their awa.

[414] Section 8 is also relevant. No guidelines are given in the Act as to the manner in which we apply the Treaty principles – which are of course obligations on the Treaty partners³⁹¹. Nor are there any guidelines in the Act as to what constitutes the principles of the Treaty.

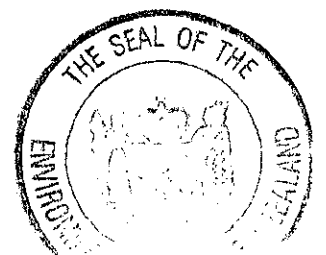
[415] In *Carter Holt Harvey Limited v Te Runanga O Tu Wharetoa Ki Kawerau*,³⁹² the High Court adopted the list of Treaty principles set out in “Laws of New Zealand – Treaty of Waitangi”³⁹³ extracted from decisions of the Waitangi Tribunal. Seven principles are paraphrased. In “Maori Custom and Values in New Zealand Law”³⁹⁴ nine principles are listed. The lists are by no means definitive lists. The principles have, and will be, enunciated on a case by case basis by the Courts and the Waitangi Tribunal.

³⁹¹ See *Sea-Tow Limited v Auckland Regional Council* [1994] NZRMA 204.

³⁹² Unreported, HC Rotorua, Keith J, 12 December 2002, at paragraph 27.

³⁹³ Paragraph 12.

³⁹⁴ New Zealand Law Commission Study Paper No. 9 (2001), pages 79-82.



[416] Of particular relevance to this case are; the principles of partnership, active protection, recognition of rangitiratanga and mutual benefit. The principle of partnership requires that the Crown and Maori act towards each other reasonably and in good faith³⁹⁵. The principle of active protection obliges the Crown to positively protect Maori Treaty interests³⁹⁶. Recognition of rangitiratanga recognises the right of Maori to exercise self-management or kaitiaki over their ancestral lands and waters. The underlying premise of the principle of mutual benefit is that Treaty partners can expect to benefit by the arrangement entered into. The Waitangi Tribunal has said of this principle:

...it was envisaged from the outset that the resources of the sea would be shared... [This principle] recognises that benefits should accrue to both Maori and non-Maori as the new economy develops but this should not occur at the expense of unreasonable restraints on Maori access to their sea fisheries.³⁹⁷

[417] Having identified the above principles, the next question is – how do we apply those principles in our decision on an application for resource consents by Genesis. Genesis is listed as a State Owned Enterprise under Schedule 1 of the State Owned Enterprise Act 1986. It is not the Crown and accordingly is not a Treaty partner. Nor is the Council.

[418] The imperative contained in section 8 does not invest consent authorities, or this Court, with authority to decide whether there has been a breach of a Treaty principle by a Treaty partner³⁹⁸. Rather we see the imperative as requiring us to “take into account” the Treaty principles with all other matters and effect a balance. We are required to assess the facts as they relate to Maori issues in the light of the Treaty principles, as ascertained by the Superior Courts and the Waitangi Tribunal.

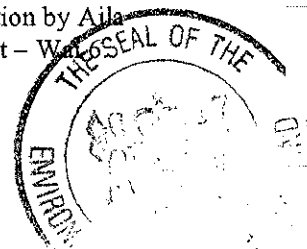
[419] Section 8 of the Act is to be read with the more specific imperatives contained in sections 6(e) and 7(a). Those provisions should not, in our view, be read with a limiting pedantry. Nor should they be bogged down in legal niceties, as for example – the precise meaning and manner of application of the Treaty principle. The imperatives ensure recognition of, but not exclusive recognition of, Maori cultural issues in the resource management process.

³⁹⁵ Waitangi Tribunal Muriwhenua Fishing Report – Wai 22.

³⁹⁶ Waitangi Tribunal – Findings and Recommendations of the Waitangi Tribunal on an application by Aila Taylor for and on behalf of Te Atiawa Tribe in relation to fishing grounds in the Waitara District – Wai 2000/01.

³⁹⁷ Waitangi Tribunal Report – Ngai Tahu Sea Fisheries Report 1992, page 273.

³⁹⁸ See *Banks v Waikato Regional Council*, A031/95, at page 13.



[420] We are also aware that Treaty obligations are not absolute and unqualified³⁹⁹. But require such action as is reasonable in the circumstances. As we have said the Maori issues under Part II need to be balanced and weighed with other Part II matters – in this case section 7(b) is particularly relevant and the many benefits that the TPD creates in the national interest.

[421] Taking into account the relevant matters in Part II, and balancing the effects on Maori against the many benefits of the TPD, [the single purpose of the Act], we are of the view that in order for there to be sustainable management some accommodation needs to be made by way of mitigation, to address the effects on Maori. The question is – how should Maori be accommodated?

[422] The Maori appellants claim their grievances can be accommodated by:

- (i) The release of more water down the waterways; and/or
- (ii) A reduced term of consent.

Genesis claimed that any Maori grievances can be met by:

- (i) Consent conditions to address tangata whenua concerns and protect their interests.

We now discuss each in turn.

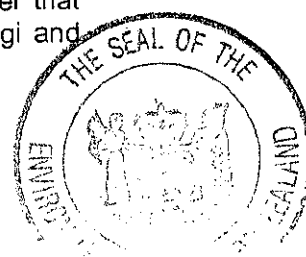
Release of more water

[423] The Maori appellants, in their notices of appeal, requested the return of full flows. Many of their witnesses did likewise. However, being pragmatic their case was not put in that way. In his closing submissions, Mr Ferguson said:

While it is accepted that the original mauri of these waters cannot be reinstated without a full restoration of the former natural flows, as Mr Mikaere acknowledged in answer to a question to Commissioner Prime, where there was no water there is no mauri. Accordingly, at the very least the Whanganui iwi and Ngati Rangi seek to reconnect wherever possible the headwaters of their tupuna awa.

In relation to the western diversion, Whanganui iwi and Ngati Rangi consider that such minimum flows could be imposed without unreasonably impacting upon the “sustainability” of the TPD. In relation to the eastern diversion, where the Wahianoa aqueduct diverts waters from 22 streams, Ngati Rangi consider that there would be scope for agreement to be reached between Ngati Rangi and

³⁹⁹ See *New Zealand Maori Council v Attorney-General* [1994] NZLR 513, TC, at 517.



Genesis regarding how any reduced diversion could be redistributed between some or all of the 22 diverted tributaries.⁴⁰⁰

[424] The position of Whanganui iwi has been consistent for many years – they want the full closure of the western diversion.⁴⁰¹

[425] Consistent with this position, a number of the iwi witnesses reiterated their desire for the return of the natural flow. For example, Ms Ranginui said:

What I would like to see is something that could be given back to my mokopuna. I would like to see the river return to its normal state. I just feel as if the river has been stripped naked. It's like seeing one of our tupuna's korowai torn away from him.

If the control of the river is returned to our people and the control of the water is carried out so that the river returns to what it once was then I will be happy. However, at the present time, I am just the river and I am grieving.⁴⁰²

Ms Ranginui reinforced her stance during cross-examination by Mr Majurey⁴⁰³.

[426] Mr Takarangi said:

So really that resource consent that Genesis wants we won't give it to them, we won't even give them half because its against what we are endeavouring to get.

This is the Whanganui River today. We, the descendants of Tupoho, grieve. We will also share the fate of the river unless the natural water flow of old is returned to us – to the iwi, hapu and whanau of the Whanganui River. The Whanganui River bears the mana of our iwi and the prestige of all our people.⁴⁰⁴

[427] Other witnesses also conceded in cross-examination to Mr Majurey that the rivers and their tributaries be put back to their natural flow. Examples were detailed in Mr Majurey's careful submissions and there is no need for us to repeat them here.

[428] As we understand the customary evidence, the full restoration is sought to provide for the protection of the mauri/mouri, tapu and mana of their waterways. Concern was also expressed about the physical effects and their affect on the rivers' ecology including fisheries. However, it will be clear from our findings, that increases in minimum flows in either the western or eastern diversion will not address the concerns raised by the Maori

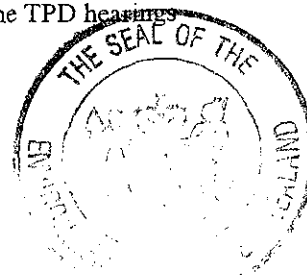
⁴⁰⁰ Mr Ferguson's closing submissions, paragraphs 28 and 29.

⁴⁰¹ See the Whanganui River minimum flows case – Planning Tribunal, at page 12; and of the TPD hearings Committee in its joint decision at page 98.

⁴⁰² Ranginui, EiC, paragraphs 47 and 48.

⁴⁰³ Transcript, pages 1013-1017.

⁴⁰⁴ Takarangi, EiC, paragraphs 22 and 23.



appellants relating to physical matters. The evidence established that, in the main, such concerns do not arise as a result of the TPD.

[429] At least two of the customary witnesses suggested “sharing” the water. Ms Metekingi said:

I think that the control of the river should be a sharing thing. Respectfully shared taking into consideration that its just not a large expanse of water to be used commercially and things like that. It's part of yourself, so you have to be respectful and be able to support it.

[430] Ms McDonnell after reading the evidence of her sister Ms Ida Taute, sought permission to share a spiritual revelation she had received at 4am that morning. After brief discussion, approval was granted by the Court, and her exultation to the people to “share the water”, appears on page 785 of the transcript.

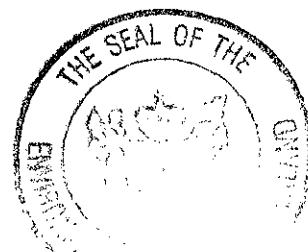
[431] The question of ‘how much water’, was raised by Mr Milne in his cross-examination of Mr Turama Hawira, an uri of Ngati Rangi and of Whanganui iwi. Mr Hawira read his evidence in Maori to the Court which was translated by an official Court translator. During cross-examination by Mr Milne⁴⁰⁵ the following exchange took place:

- Q. So ultimately, your position is for restoration of flows in the Eastern Diversion?
- A. For restoration to the point where the equilibrium of a natural ecology is maintained in accordance with customary rights of Ngati Rangi.
- Q. What do you mean by equilibrium?
- A. Balance.
- Q. Where are we to find the explanation of that balance in the evidence being presented to this Court on behalf of Ngati Rangi?
- A. It is for us to answer that question.
- Q. It is not a trick question – where is the evidence - is there a specific kaumatua's evidence that preceded you that you would refer to as demonstrating that point of equilibrium that you can say the Court should be looking to?
- A. The alternate from – in accordance with that which I have heard from kaumatua would be to restore it to its full flow.
- Q. Thank you.
- A. But unfortunately we are in a position of having to compromise.

[432] The matter was further raised at the end of the evidence of Mr Wood. At the end of paragraph 6.5 he interpolated and said⁴⁰⁶:

⁴⁰⁵ Transcript, page 807.

⁴⁰⁶ Transcript, pages 816 and 817.



There were questions asked about where is that balance? How much water needs to be retained to sustain the mauri? All that our people know, the environmental baseline that our people knew was before the TPD, and the mauri of those streams and rivers was well, and our people were well. And so I don't know that we know how much water you can take away from that baseline before that balance is put in jeopardy. ... I don't think we can sit here and say that it's so many cumecs minimum flows or not, because I don't think we actually know. All we know that these rivers are in a desperate plight at the moment. So that will be a challenge for the science to find it along the way. But we believe we haven't had any opportunity to interact in that science, and watch that science evolve. So someone asked the question, do we want, as Ngati Rangi people, to have the TPD removed from the landscape? I think from the korero after, at morning tea, the old people believe yes. But is that realistic? We talk about national interest. And we need to consider the proposed waterways, they come first. ... I don't believe that the continued diversion for 35 years, or for whatever time or into the future, is something that our people would be comfortable with. We might as well sort of be reasonably straight up about that. But we are trying to look for an opportunity to try and improve that situation, to make it better to look for a sustainable alternative to the degradation that is taking place.

Mr Wood sought a term of 10 years to enable further discussions to take place so that some equilibrium or balance could be arrived at by way of a consensus.

[433] The customary evidence as to the "sharing" of the waters lends some support to the pragmatic position advanced by counsel for the Maori appellants, namely that they "seek to reconnect where possible the headwaters of their tūpuna awa". Some support can also be found in the evidence of Mr Ross Wallis for Tamahaki, and in the cross-examination and questioning of Mr Taiaroa. In his evidence in chief, Mr Wallis says at paragraph 3.3:

...the only acceptable solution for the grievance of the hapu in relation to the TPD was the return of the natural flow of the Whanganui River Catchment.⁴⁰⁷

In response to Mr Majurey's cross-examination on the continued existence of the Western Diversion, Mr Taiaroa responded "return some water back"⁴⁰⁸ and "we said give some water back"⁴⁰⁹.

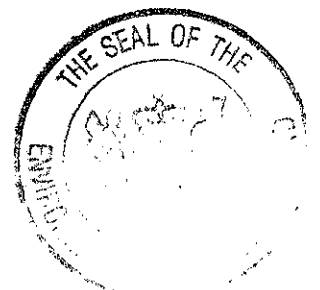
[434] The following exchange took place between the Court and Mr Taiaroa regarding the water sought by the Whanganui iwi:

Q. I mean, are we talking about completely shutting off the headwaters of the Whanganui, or a day a week off, or the four – Tawhitikuri and the other tributaries, a reduction, or a shutting off once a week or – I mean, I

⁴⁰⁷ Wallis, EiC, paragraph 3.3.

⁴⁰⁸ Transcript, page 1122.

⁴⁰⁹ Transcript, page 1123.



have no idea what you are thinking of, and I just wondered if you have ever got down to that sort of stage of discussion?

A. No, we haven't got down to that stage of discussion. I mean you have heard the people say, right, we want the water back.

Q. Right.

A. And I suppose that is it, until such time as discussions happen, if it does, in terms of – say for example we are generating out here, at Piriaka, and we are using water to generate electricity which is part of the Genesis scheme I think, now. I mean – so we are not against generation or use of river as such. We are against the diversion of the river somewhere else.⁴¹⁰

[435] Further support for Mr Ferguson's submission, requesting us to release more water, comes from the saying which we have already quoted, and which we repeat here.

I rere mai te awa nui, mai i te Kaahui Maunga ki Tangaroa, ko au te awa, ko te awa ko au

This saying underlies the importance to the Whanganui people of the unbroken link the river provides, from its source in the mountains to its destination, the sea. The saying was repeated in different forms in the evidence of many of the iwi witnesses.⁴¹¹

[436] We have given serious consideration as to whether we should close one or other of the intakes, in both the Western and Eastern diversions, to ensure the unbroken link that the river once provided is restored.

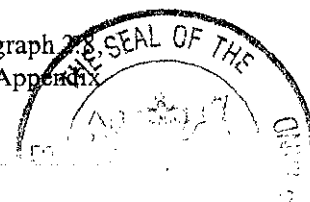
[437] Unfortunately, there is no evidence from which we could make a principled assessment of the quantitative nature of any restored flows that should be imposed for cultural reasons. No witness has been able to quantify how much water, other than full restoration of flow, should be returned to ameliorate the spiritual loss occasioned by the diversions. For this reason, Mr Ferguson could not in his submissions, quantify what minimum flow of water the Maori people now sought.

[438] Without such evidence, it would be presumptive of us to impose minimum flows, that we determine address Maori concerns. That is a matter only Maori can determine, and it should be determined in an appropriate Maori way.

[439] We therefore decline to interfere with the proposed minimum flow regime.

⁴¹⁰ Transcript, page 1126.

⁴¹¹ For example: Richards, EiC, paragraph 2.1, Taute, EiC, paragraph 2.1, Mareikura, EiC, paragraph 2.1, Wood, EiC, paragraph 4.9, Potaka, EiC, paragraph 26; Henry, EiC, paragraphs 4 and 17; Mair, Appendix A, pg.4.



Reduced term

[440] The Maori appellants, taking a pragmatic position, sought a reduced term of consent rather than the 35 years sought by Genesis. Ngati Rangi's position was best put by Ms Rawiri:

We are seeking a reduced consent term to 10 years to allow for the actual and potential TPD effects on Ngati Rangi iwi to be properly assessed, and for adverse effects to be avoided, remedied or mitigated accordingly. This will ensure that the TPD consents meet the requirement of sustainability within its full meaning as provided for by the RMA.⁴¹²

[441] The Whanganui iwi position was put by Mr Taiaroa:

However, until an enduring settlement has been reached with the Crown, the Whanganui iwi cannot conscientiously resile from their obligations as kaitiaki of the Whanganui River when the Crown – or in the present case a Crown company, Genesis Power Limited – seeks to continue actions that denigrate the River.

In the present case the situation is made all the more acute by the fact that while the Whanganui iwi are moving ever closer to a settlement with the Crown, Genesis seeks to advance its position – and thereby further entrench the ongoing damage to the Whanganui River – by pursuing a resource consent for 35 years or literally two generations. The prospect of the TPD continuing in its present form for 35 years, unaltered and without the opportunity for wholesale review, is abhorrent to the Whanganui iwi.⁴¹³

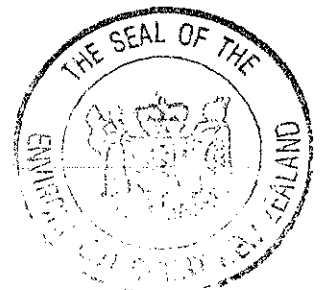
The Whanganui iwi sought a 5 year term.

[442] As we understand the Maori appellants' position, a shorter term is sought principally:

- (i) To enable a proper assessment of cultural effects and determine appropriate measures to avoid, remedy or mitigate such effects; and
- (ii) To enable the consents to be fully reassessed, following a settlement between the Crown and Whanganui iwi in respect of their Waitangi Tribunal claim.

⁴¹² Rawiri, EiC, paragraph 8.2.

⁴¹³ Taiaroa, EiC, paragraphs 12 and 13.



[443] We are mindful of the separate legal process as between the Waitangi Tribunal claim and the proceedings before us. While the two proceedings are separate in a legal sense, there may, for practical purposes, nevertheless be an overlap⁴¹⁴. However, in these proceedings we confine ourselves to the resource management s that arise under the Resource Management Act

[444] In evidence Ms Melhuish advanced three grounds for a reduced consent term:

- (i) The obligation of line companies to maintain “uneconomic lines” ceases in 2013;
- (ii) The end of the first commitment period of the Kyoto Protocol;
- (iii) The Comalco contract comes to an end.⁴¹⁵

[445] We did not find any of the reasons advanced by Ms Melhuish compelling for the reasons given in the rebuttal evidence of Mr Carroll⁴¹⁶.

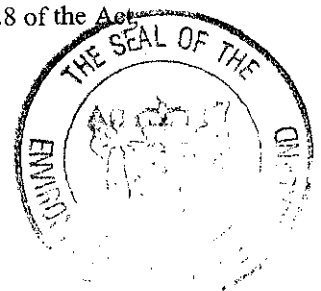
[446] Genesis seeks a 35 year term. It maintains that a 35 year consent term would promote sustainable management for a number of reasons including:

- (i) The TPD has been in operation for between 20 and 40 years;
- (ii) The environmental effects have been comprehensively investigated and are well known;
- (iii) The TPD is a renewable and sustainable source of electricity generation;
- (iv) The public interest in maintaining the viability and operating capacity of the TPD;
- (v) Consultation and information collection for the applications was commenced over 10 years ago and has been ongoing;
- (vi) The consultation, co-ordination and technical investigation process represents a significant investment of time and resources by Genesis;

⁴¹⁴ As recognised by the recommended condition of consent to enable a review under s.128 of the Act following a Treaty settlement.

⁴¹⁵ Melhuish, EiC, paragraph 3.15.

⁴¹⁶ Carroll, rebuttal, paragraphs 2-32.



- (vii) Extensive mitigation measures are proposed;
- (viii) Genesis has agreed to comprehensive review conditions, including a Treaty of Waitangi settlement review condition;
- (ix) Genesis has reached agreement with many parties who have not opposed a 35 year term;
- (x) Almost all other existing hydro power schemes re-consented under the Act have received 35 year terms;
- (xi) The high degree of investment in the TPD by New Zealand taxpayers;
- (xii) Achieving security of supply, and allowing the government and electricity industry to factor in certainty of TPD supply in future electricity decision-making;⁴¹⁷
- (xiii) Genesis' clients receiving contractual security in the present environment of increasing electricity demand and declining gas availability;⁴¹⁸
- (xiv) Genesis having a secure economic base from which to conduct its business.⁴¹⁹

[447] In support of Genesis' proposition, we heard specific evidence from Dr Phillip Mitchell, an environmental consultant, Mr Carroll and Ms Hickman. Also important is the evidence of Mr Copeland and Mr Truesdale. Nor do we forget the extensive evidence we heard from others, regarding what we have called "national interest" matters.

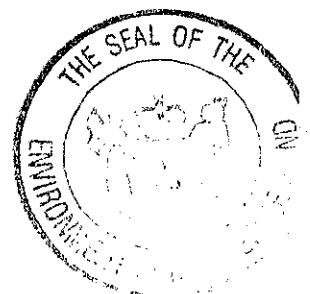
[448] Dr Mitchell correctly opined that limiting the duration of the consent is one of five mechanisms in the Act that can be used to ensure that the effects of activities are acceptable or remain so. The others are:

- (i) Using conditions to set standards that must be achieved;
- (ii) Requiring compliance monitoring to be undertaken to ensure that the standards are being achieved, and providing these results to the Consent Authority;

⁴¹⁷ Genesis opening submissions, paragraph 220.

⁴¹⁸ Carroll, rebuttal evidence, paragraph 2.35(c).

⁴¹⁹ Carroll, rebuttal evidence, paragraph 2.35(b).



- (iii) Requiring periodic, ongoing monitoring of the environment and/or the environmental effects of the activity and providing this information to the Consent Authority;
- (iv) Incorporating review conditions to deal with the consequences of any unforeseen effects revealed by the monitoring⁴²⁰.

[449] Dr Mitchell told us that all of the five mechanisms have been considered in assessing the appropriate term. He emphasised that it was his view that the most appropriate way of controlling effects on the environment and on Maori, is by appropriate conditions⁴²¹. He reminded us that the conditions of consent as proposed, have been reached after some 10 years of consultation and technical research, undertaken in partnership with those affected and who wished to be involved.

[450] Mr Carroll, in his rebuttal evidence pointed to a number of factors that he considered justifying a 35 year consent term including:

- (i) The high degree of investment that New Zealand taxpayers, via Genesis and its predecessors, had made to the TPD;
- (ii) The public interest in maintaining the viability and operating capacity of the TPD;
- (iii) The fact that it is a renewable and sustainable source of electricity generation.⁴²²

[451] As to Genesis' investment he emphasised that it is a publicly owned asset with a replacement value in excess of 1.5 billion dollars. He also referred to the need to continually contribute significant expenditure to maintain and upgrade the TPD. He concluded by saying:

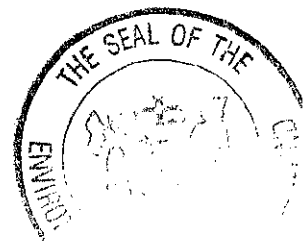
The TPD infrastructure is an existing and nationally important natural and physical resource producing electricity critical to New Zealand's supply, as evidenced especially in the 2001 and 2003 energy crisis. It follows therefore that 35-year consents is the appropriate consent term to reflect the importance of TPD in achieving sustainable management.⁴²³

⁴²⁰ Mitchell, second statement of evidence, paragraph 4.3.

⁴²¹ We consider the conditions in the next section of this decision. Mitchell, second statement, paragraph 4.14.

⁴²² Carroll, rebuttal, paragraph 2.33.

⁴²³ Carroll, rebuttal, paragraph 2.36.



[452] Of the fourteen reasons put forward by Mr Majurey, nine of them are what could be called “national interest matters”,⁴²⁴ three are “procedural”,⁴²⁵ and two relate to “environmental effects”.⁴²⁶ All are important. But, at the end of the day, we find that it comes down to a balancing of the effects on Maori against the national interest factors and determining whether the appropriate balance can be reached by either the proposed review conditions or a reduced term.

Consent conditions proposed by Genesis to meet Maori concerns

[453] At the Council level, Genesis proposed conditions to address concerns of tangata whenua. Before us, Genesis have again responded to tangata whenua concerns by suggesting new conditions and massaging some of the earlier conditions. The proposed conditions were further amended to take into account certain matters raised by Mr Ferguson in a memorandum “resource consent conditions” dated 15 December 2003. Generally, they provide for:

- (i) Genesis to use its best endeavours to develop and reach agreement on a process that provides for ongoing cultural and spiritual advice and the preparation of a cultural management plan;
- (ii) Genesis is, in February 2004, to provide the Council and the Maori appellants with a written report on the matters referred to in (i) including advice of any steps taken to avoid, remedy or mitigate any adverse effects on Maori;
- (iii) The Council may, within 3 months of receiving the report required by (ii) initiate review proceedings under section 128(1) of the Act;
- (iv) The Council shall, within 12 months of the enactment of legislation in respect of any settlement under the Treaty of Waitangi Act, initiate review proceedings under section 128(1) of the Act for the purpose of making the consent consistent with any such legislation.

These conditions are included in the 30 consents subject to appeal.

⁴²⁴ Paragraph 446 – (i), (iii), (iv), (vi) and (x) – (xiv)

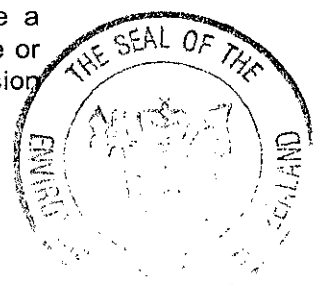
⁴²⁵ Paragraph 446 – (v), (viii) and (ix).

⁴²⁶ Paragraph 446 – (ii), (vii).



[454] Dr Mitchell discussed the consent conditions as now proposed, at some length in his second statement of evidence and how, in his view, they address tangata whenua concerns. A lengthy interpolation of his evidence was set out in full in Mr Majurey's closing submissions. As it encapsulates succinctly the position advanced by Genesis we quote it in full:

The conditions of consent granted by the regional councils provide for tāngata whenua concerns in respect of the Eastern and Western diversions in a number of ways, namely, imposing a mandatory review condition to address resource management matters that arise from the settlement of Whanganui iwi's treaty claim; imposing a discretionary review condition to address resource management matters that arise from treaty claims in general; including an Advice Note on consent 101275, noting Genesis' intention to work with Ngāti Rangi to continue to address cultural and spiritual matters, facilitate ongoing consultation and prepare and implement a Cultural Management Plan to, amongst other things, provide for kaitiakitanga to be exercised (this was originally proposed by Genesis as a consent condition on the Wahianoa Aqueduct consents); providing a recreational bathing hole in the Whangaehu River in response to Ngāti Rangi's submission at the council hearing; requiring recreational amenities in Moawhango River, requiring a minimum flow and flushing flows in the Moawhango River downstream of the Moawhango dam; requiring minimum flows on the Whakapapa River, the Whanganui River, both at the intake and at Te Maire, and on the Mangatepopo Stream; requiring annual meetings with parties, including Moawhango tāngata whenua regarding the Moawhango River, requiring that a written report on all Western Diversion monitoring be provided to the Whanganui River Maori Trust Board on an annual basis. I have already stated in my first statement of evidence, that three changes be made to those conditions, namely: that the so-called mandatory Treaty review clause be extended to apply to all consents for the Eastern and Western Diversions; that the Advice Note on consent 101275 be included as a condition of consent for all Eastern Diversion consents – and the wording of that condition is set out on page 39 of Mr Majurey's opening; and that the Treaty review conditions be expanded to make it explicit that any such review could impose further or additional review conditions. As I have previously stated, I consider that these provisions are a realistic and appropriate way of providing for meaningful tāngata whenua input to the operation of the TPD on an ongoing basis to address sections 6(e), 7(a) and 8 matters. However, it does not necessarily resolve the potential dilemma for the Court in trying to consider how the various assessments could have incorporated cultural and spiritual aspects. Clearly, it would be desirable for any such evaluations to be available now, but apart from tāngata whenua's insistence that the diversions cease altogether or in some cases that only short term consents be granted, and concerns about customary fishing issues, mauri and resource ownership, I am no more advanced in understanding how these can be addressed than I was when I commenced work on the project in 1997. One way and the one suggested by Ngāti Rangi, is to grant short-term consents, during which time cultural assessments could be undertaken. As explained previously, I do not consider a short term consent to be appropriate in the current case, especially given that the lack of cultural components of the assessments are as a direct result of tāngata whenua choosing not to engage meaningfully with Genesis. The alternative and, in my opinion, only appropriate way I can think of for addressing this aspect would be to do two things. Firstly, incorporate a condition on all Eastern and Western Diversion resource consents, the same or similar to that I have previously proposed be included on the Eastern Diversion



consents, namely, that the consent holder develop a process after consultation with tāngata whenua to: provide for ongoing cultural and spiritual advice; provide for ongoing consultation; prepare and implement a Cultural Management Plan that, in general, seeks to formulate and implement kaitiakitanga protocols. And secondly, impose an additional review condition on all Eastern and Western Diversion consents that provides for a review of conditions after five years, in order to address any matters raised by tāngata whenua in the consultation/cultural assessment/Cultural Management Plan process that I have just described⁴²⁷.

[455] The Maori appellants do not accept that their concerns can be adequately addressed by the proposed conditions. It appears to us, that the main reasons the Maori appellants oppose their concerns being met by the proposed consent conditions are:

- (i) the responsibility is on the Council to implement the conditions. The Maori people's position is secondary and they do not have any control; and
- (ii) the review conditions are more limiting than a new application.

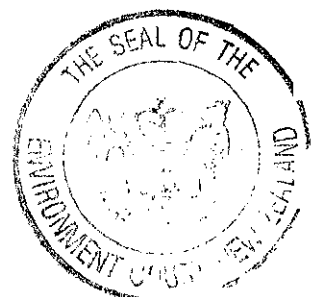
Evaluation of options

[456] We now evaluate the two remaining options; a reduced term versus proposed review conditions.

[457] Mr Wood encapsulated the dilemma of the Maori appellants. Before the TPD the mauri of the rivers was well, and the people were well. How is this to be restored? He accepted, that full restoration of flow is not now a realistic option, and recognised the need for a balance between the national interest and the mauri of the waterways. The challenge, he said is to find "a sustainable alternative to the degradation that is taking place. This he said can be found by the Maori people interacting with Genesis.

[458] To reach a sustainable balance as between Maori and the national interest is a complex issue. It can only be done by first identifying, with specificity, an inventory of Maori values and then, assisted through the application of technical methods, to formulate appropriate mitigation methods. Such methods will not necessarily be limited to instream flows and the river habitat but will involve practical ways for Maori to

⁴²⁷ Transcript, pages 628-630.



exercise their rangatiratanga and discharge their responsibilities as kaitiaki. This may involve a number of “off-site” measures to be implemented.

[459] This requires, what we have already described as a meeting of the minds. As we have said, it is only by a meeting of the minds between the expert witnesses and the Maori witnesses that both parties can then explore the variety of options, that will assist in addressing values that require protection under Tikanga Maori. The question is – how can this best be done while at the same time achieving sustainable management – by a reduced term or by the proposed review conditions of consent?

[460] In addressing this issue, Mr Majurey, in his competent way, made strong submissions for the option of a 35 year term incorporating reporting, monitoring and review conditions to accommodate the effects on Maori. To do otherwise, he said, would penalise Genesis for the failure of the Maori appellants to:

- (i) directly speak of their issues and interpret them;
- (ii) despite the time and opportunity, to not disclose their customary evidence until August 2003. This only gave Genesis five weeks to respond to the Maori dimension; and
- (iii) having asserted effects on their spiritual and cultural values, failing to support their cases and their claims with evidence.

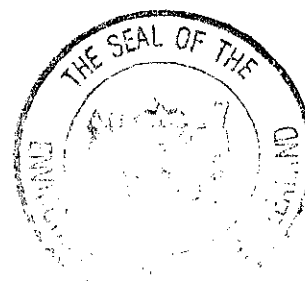
As there is considerable merit in each of these matters, we consider each in turn.

(i) The appellants’ refusal to directly speak of their issues and interpret them

[461] Mr Majurey submitted:

From the outset, ECNZ (and subsequently Genesis) considered the only appropriate way to assess Maori spiritual and cultural effects was from tangata whenua directly. The appropriateness of this approach has been universally confirmed by tangata whenua, for example each Ngati Rangi pahake stating that it is for them and only them to speak of their issues and interpret them.⁴²⁸

⁴²⁸ Genesis closing submissions paragraph 17.



[462] He then carefully detailed the extensive evidence relating to Genesis' attempts to incorporate the Maori dimension⁴²⁹. With regard to Ngati Rangī he referred to the extensive evidence of Ms Hickman and Ms Rawiri to which we have already alluded. We do not propose to discuss that evidence in detail. We think that the nub of their mutual difficulties is revealed in the following exchange between the Court and Ms Hickman.⁴³⁰

Q. You mentioned in your evidence this afternoon about making available your experts to Ngati Rangī. What did you mean by that?

A. That was an approach that we took, not just with Ngati Rangī but with all of the stakeholders that we were in discussions with and it meant on many occasions our technical experts such as Dr Boubee and others actually came to either stakeholder meetings or meetings with one or other party and presented the information that they collected and then were through those meetings really assisted to better understand what it says, because I mean a lot of the science is complex. It was really fit in with our objective of trying to achieve a common information base. That was our objective from day one and certainly a lot of the science is complex certainly for members of the public, let alone people that have a broad understanding of environmental issues. So the objective was to make available those scientists to present their information directly to the parties and to allow those parties to ask questions, to understand how it was collected, what it included, how they formed those conclusions and the like. And, as I said, that was something that the experts undertook quite commonly.⁴³¹

Q. And did it also involve a sharing of information from Ngati Rangī to the experts?

A. That was something that we talked about throughout and that was certainly something we would have been willing to enter into, but we sort of got bogged down in the process of trying to define a consultative...

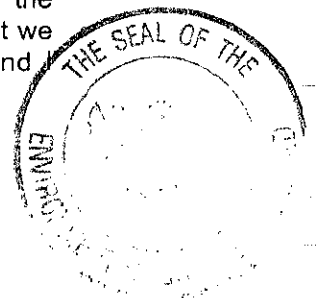
Q. You may have answered my next question. It doesn't seem to have happened and I was going to ask why?

A. That is a good question. It is something that we were prepared to do at all occasions. I mean I recall specifically and I have since confirmed this with Dr Mitchell – I mean it was something we proposed way back in a letter I wrote to – sorry, in discussions I had with Ngati Rangī in the year 2000 – March 2000 when we actually talked about that directly with Mr Pirere and Mr Wood and I recall again when we first met with the new Ngati Rangī Trust, including Ms Rawiri in – I am losing track of time but when the new trust was formed I guess 18 months or so ago – beginning of last year I think it was, sir – when we first met with that trust and we talked about the fact that because they hadn't been involved in the process there was an awful lot of information and I think I quoted that we would have to go over some of this information sharing ground and

⁴²⁹ See Genesis closing submissions footnote 26 and paragraph 20 and following.

⁴³⁰ Transcript, pages 1305-1309.

⁴³¹ Transcript, pages 1305-1309.



specifically recall saying if it would assist we are very happy to bring in the technical expert to present that information to you and to discuss it with you. Do you want me really to assist you in coming up to speed what had by that stage been a 10 year process of information collecting. But Ngati Rangi never took us up on that offer and I guess we never really got to a point in the process where that sort of dialogue and that sort of information sharing was forthcoming regrettably.

Q. It appeared from some of the answers Dr Boubee gave to some of the Court's questions this morning...

A. Yes.

Q. ...that it can be advantageous for scientists who work in the field to try and obtain anecdotal information from those who are actively involved in living and working in the area.

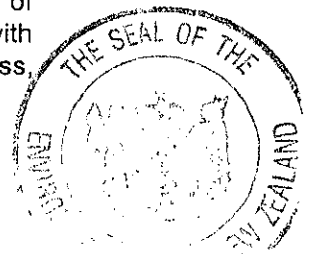
A. Yes, yes.

Q. And that doesn't seem to have happened.

A. No, and look, I absolutely agree that is our experience through this process that the scientists engaging with – whether it be tangata whenua or fishermen or landowners or whoever, and really an information sharing, that was something that we achieved in a lot of cases through this hearing and that led to successful outcomes. But the approach that we took throughout was to really set in place a process to start with involving Genesis and Ngati Rangi and then at the appropriate times to bring in the scientists to assist the discussion and to assist their understanding of the work that they had done and to include that information in it, but unfortunately with Ngati Rangi it has been a long process of us, you know – for many years, as Ms Rawiri talked about, Ngati Rangi were not prepared to enter into discussions with Genesis directly and it wasn't until 2000 where – I think in 1997 we actually formally advised Ngati Rangi that we would be applying for consents in 2000, so we are getting late in the piece when Ngati Rangi finally sort of agreed to enter into what Ms Rawiri described as – or engage in discussions with us. So we – I mean we had to proceed with collecting – with some of those scientists collecting that information prior to then because we had to prepare an assessment of environmental effects. So our approach really was to seek that information through us before the scientists went out and were involved in those discussions with us and that was the approach we took elsewhere as well.

Q. So the reason why it never eventuated was because no formal arrangement was ever entered into?

A. Well, remembering that this process started of information collecting and pulling together the information for the AEE started in 1991, 1992 and it wasn't until 1997 that Ngati Rangi decided that they wanted to meet with us directly and until 2000. Then you will recall from my principal evidence there and my rebuttal evidence that there was a number of years of Ngati Rangi not being prepared to talk with Genesis because of issues surrounding the split of ECNZ, and because of their affiliation with the Whanganui River Maori Trust Board. So that really, I guess, prohibited that happening in those years.



Q. Did Genesis ever write to Ngati Rangi, or to any Iwi I suppose, or request verbally or by e-mail, or whatever, along those lines, Dr Boubee is collecting information for our resource consent process. He would like to discuss – and he is a fisheries expert, he would like to discuss with a nominated person or persons the experience of Ngati Rangi in the tributaries of the Whangaehu River or anything of that nature?

A. Well, I can't recall specific letters but it was certainly inherent in the whole approach that we took through the consultative process which was to make our findings available, not just to present their information but to involve them in the process of hearing about the issues, hearing about that sort of information and that was really an inherent part of that process on consultation, of creating a forum of that dialogue and it wasn't – it included that sort of information.

...

Q. ...what I am really trying to say was Genesis proactive in saying we have got these scientists. They are going to give evidence before the Commissioners. They are going to give evidence before the Environment Court, we know you have got concerns, we are happy to send them along to find these out and so on?

A. Yes, we were throughout.

Q. Because not one of the experts that have given evidence on scientific matters has actually referred at all to the anecdotal evidence of the Maori.

A. No, and I guess the approach that we have taken, and perhaps covering ground that I have just been over, is – I mean if you asked them those questions involving other parts of the scheme where we were successful in entering into that dialogue, they came to those meetings, they were involved in that dialogue, they were involved in that consultation. That fed into the...that they produced, but in this situation regrettably we never achieved that dialogue to enable that free flow of information both ways. Certainly Dr Boubee, Mr Kennedy, Dr Smart attended many meetings with other Hapu, with other Iwi, with other stakeholder groups where precisely that happened sir.⁴³²

[463] This exchange, highlights the evidence of both Ms Hickman and Ms Rawiri that the consultation process never really got “off the ground” as the parties could not agree on a formal protocol. As we have said, this was due, in part at least, to the perceptions of both parties about the entrenched position of each other.

[464] With respect to Whanganui iwi, and Ngati Rangi up to the year 2000, Mr Majurey pointed out, that they refused to enter into negotiations unless the waters of the Whanganui River were released. As we have said, it is also apparent from the evidence

⁴³² Transcript, pages 1305-1309.



that Whanganui iwi did not want to pre-empt any settlement with the Crown by an agreement with Genesis.

[465] Mr Majurey's point was, that having withheld information, the Maori appellants cannot legitimately criticise Genesis for not taking such information into account.

[466] This argument has some attraction. We agree with Mr Majurey to the extent, that Genesis should not be criticised. However, the Maori appellants' actions in this regard need to be considered in context. We cannot ignore the historical context – particularly the peremptory manner in which the water was diverted. Nor can we ignore the depth of feeling that the Maori have with their tūpuna awa, as reflected in their continuous struggle over the years to have their grievances judicially recognised. A struggle, which has prompted a considerable reservation amongst Maori, a reservation amounting almost to a perceived feeling of mistrust. Despite the genuine efforts of Genesis, the formality and protocol required by them as a precursor to negotiation, compounded this perception.

(ii) Not disclosing the customary evidence until August 2003

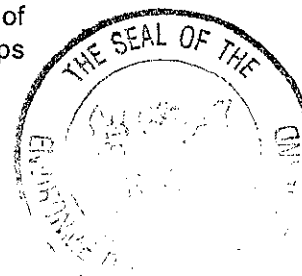
[467] The evidence by the Maori appellants, and exchanged in August 2003, was more detailed than that adduced before the Hearing Committee. However, the grievances of the appellants have been known for many years. They are well documented in the Whanganui Report. They are also referred to in the "*Cultural Issues Report*" prepared by Mr Gerrard Albert, Manager Iwi Relationships for the Council. As he pointed out, it was not so much a recognition of the effects on Maori, but determining how those effects can be mitigated. His recommendation contained in his "*Additional Report on Cultural Issues*" dated November 2000 was:⁴³³

It is my assessment that the Committee does not have sufficient information on cultural and spiritual effects of the TPD, or adequate information on the assessment of those effects under sections 6(e), 7(a) and 8 of the Act to grant consents for 35 years. It is therefore recommended that the Committee, in order to allow time for these effects to be adequately assessed by firstly the applicant (under signed agreements with tangata whenua), by iwi themselves and the consent authorities, grant consents for a period considerably less than 35 years.

His reasons were:

The main rationale for this recommendation is to provide for the mitigation of adverse effects proactively, while at the same time allowing for the relationships

⁴³³ Pages 6 and 7.



entered into between the applicant and respective iwi to pinpoint the exact nature of those effects and their mitigation within a reasonable timeframe. ... And a reduced term of consent is not only to provide for the loss of mana that results from not being involved in decisions on the TPD consent applications, or to allow for Treaty of Waitangi claims to be settled. It is also about taking the time to consider the effects, and providing for their mitigation in real terms. This may mean not only reviewing specific consent conditions after 5 years, but revisiting the whole TPD within a reasonable period, whereupon all effects have been adequately assessed, and full weight can be given to their mitigation.

The situation has not advanced much since then.

(iii) *The appellants are required to support their cases and substantiate claims with evidence*

[468] Mr Majurey referred to the oft-quoted passage of the Planning Tribunal in *McIntyre v Christchurch City Council*⁴³⁴:

...it is our understanding of the Law that on a resource consent application, like a planning application under the former regime, there is not a burden of proof on any party, but that there is an evidentiary burden on a party who makes an allegation to present evidence tending to support the allegation (*West Coast Regional Abattoir v Western County Council* (1981) 10 NZTPA 297).⁴³⁵

And the following passage in *Shirley Primary School v Christchurch City Council*⁴³⁶:

To summarise on the issues of onus and burden of proof under the Act:

1. In all applications for a resource consent there is necessarily a legal persuasive burden of proof on the applicant. The weight of the burden depends on what aspects of Part II of the Act apply.
2. There is a swinging evidential burden on each issue that needs to be determined by the Court as a matter of evaluation.
3. There is no one standard of proof, if that phrase is of any use under the Act. The Court must simply evaluate all the matters to be taken into account under section 104 on the evidence before it in a rational way, based on the evidence and its experience; and giving its reasons for exercising its judgment the way it does.
4. The ultimate issue under section 105(1) is a question of evaluation towards the concept if a standard of proof does not apply.

[469] Mr Majurey then went on to say:

⁴³⁴ [1996] NZRMA 289.

⁴³⁵ At pages 306, 307.

⁴³⁶ [1999] NZRMA 66.



Having asserted effects on their spiritual and cultural values, the appellants are required to support their cases and substantiate their claims with evidence – that is not the role of Genesis (nor the Council or Court). Absent such evidence, the Court can only make findings on the material placed before it at this hearing. Nor, is it open to the Court to effectively penalise an applicant (via eg additional minimum flows or short terms) because of the failure of an appellant to adduce the evidence necessary to support its case when it has had numerous opportunities to do so.⁴³⁷

[470] It will be evident from this decision so far, that we have found that the evidence of the Maori witnesses have effectively established that the diversion of the waters has had a substantial and detrimental effect on their spiritual values. The difficulty is determining the appropriate measures to mitigate those adverse cultural effects.

[471] The instant reaction of Maori was to request restoration of the water. However, in recent times the Maori appellants have accepted the need to accommodate that extreme view. Just how, is a difficult question. It is apparent from the evidence that Maori are having extreme difficulty in identifying appropriate restorative action to meet the metaphysical effects on them. They ask for some time to work the matter through.

Our findings on evaluation of options

[472] In evaluating the various matters that we are required to under the Act and evaluating the matters on which evidence was presented, we have had some difficulty in weighing the metaphysical matters against the physical and scientific matters. Notwithstanding this difficulty, the Act nevertheless requires us to do so. In so doing, we have had to make a value judgment which reflects what is in our view the relative importance of these matters and the relevant magnitude of the various matters.

[473] We were at first attracted to Mr Majurey's plea for the matter to be resolved by Genesis' undertaking to incorporate proposed conditions of consent including: using its best endeavours to prepare with Maori a Cultural Management Plan; to provide the Council with a written report outlining the adverse effects on Maori; and provide for the Council's ability to initiate review proceedings. However, any such review would not have the same ameliorating power as a fresh application⁴³⁸. This is particularly so of the resource consents for the intakes of the Western Diversion. Each intake is the subject of a separate resource consent – thus it would not be possible, on a review, to require

⁴³⁷ Majurey, closing submissions, paragraph 31.

⁴³⁸ See *Prime Range Meats v Southland Regional Council*, EC, C127/98; and *Brightwood v Southland Regional Council*, EC, C143/99.



closure of one or more of those intakes (for example the intake on the main stem of the Whanganui River). To do so would effectively nullify the grant of consent⁴³⁹.

[474] We are conscious of the desire of Genesis to have economic certainty and also the national interest factors that were canvassed in the evidence and submissions. Notwithstanding, we agree with Mr Taiaroa, that the prospect of the TPD continuing for a period of 35 years without the opportunity of “wholesale review” would be daunting to Maori – especially in the historical context of their many years of claims before different Courts and Tribunals.

[475] We consider, on balancing all the matters raised in the evidence and the submissions, and having regard to the single purpose of the Act, that an appropriate term of the consents, that are subject to these appeals, is 10 years. This will provide time for a meeting of the minds between the two parties on what is a complex and difficult issue. We consider a term of 10 years would concentrate and focus the minds of both parties.

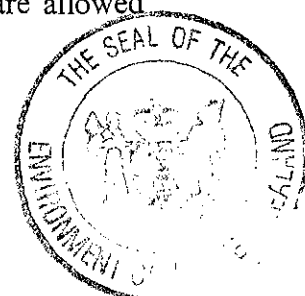
[476] We have had regard to all the matters put forward in the submissions of Mr Majurey and the evidence of the Genesis witnesses, particularly Dr Mitchell. At the end of the day what has prevailed on us has been:

1. the magnitude of the effects on Maori;
2. the immense depth of feeling apparent from the Maori witnesses which reflects the magnitude of those effects;
3. the greater ameliorating power of a fresh application over review proceedings; and
4. a term of 10 years recognises the national interest factors and provides a correct balance.

Determination

[477] Accordingly, the appeals are allowed to the extent that the term of the consent is reduced from 35 years to 10 years. The application for resource consents are allowed

⁴³⁹ See *Lyttleton Port Company Limited v Canterbury Regional Council*, EC, C8/01.



subject to the proposed conditions attached as Appendix 3 to this decision, save for the deletion of the conditions proposed by Genesis to meet Maori concerns and as summarised by us in paragraph 453 of this decision.

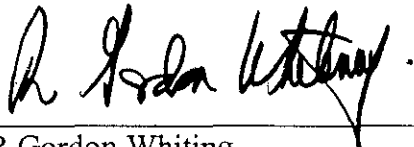
[478] Because of the complexity of the conditions leave is reserved for the Council to make an application to the Court for an amendment to the proposed conditions within 30 working days.

[479] The Draft Consent Orders awaiting approval can now be made in accordance with this decision. Counsel for Genesis is to file orders for sealing and issue.

[480] Costs are reserved.

DATED at AUCKLAND this 18th day of May 2004.

For the Court:



R Gordon Whiting
Environment Judge



APPENDIX 1

SUMMARY OF RESOURCE CONSENT APPLICATIONS

SUBJECT TO APPEAL

Wahianoa Aqueduct and Mangaio Tunnel

- 101275 **Water permit** – To **divert** the full flow of water between tributaries of the Whangaehu River within the area defined by map references NZMS 260 T20: 358-000, T20: 428-990, T20: 428-980 and T20: 358-988.
- 101276 **Water permit** – To **dam, divert and take** water at a minimum combined quantity of up to 9 cubic metres per second from 22 waterways within the area defined by map references NZMS 260 T20: 358-000, T20: 428-990, T20: 428-980 and T20: 358-988.
- 101277 **Discharge permit** - To **discharge** water taken pursuant to Resource Consent Application No. 101276 and any material contained therein at a maximum rate of up to 9 cubic metres per second into the Mangaio Stream at or about map reference NZMS 260 T20: 446-989.
- 101278 **Discharge permit** - To **discharge** water taken pursuant to Resource Consent Application No. 101276 and any material contained therein into 21 waterways within the area defined by map references NZMS 260 T20: 358-000, T20: 428-990, T20: 428-980 and T20: 358-988 for the purpose of draining water from the Wahianoa Aqueduct.

Moawhango Section

- 101279 **Water permit** - To **dam** the Moawhango River at or about map reference NZMS 260 T20: 472-962 by means of the Moawhango Dam structure.
- 101280 **Discharge permit** – To **discharge** water and any material contained therein into the Moawhango River downstream of the Moawhango Dam structure, at or about map reference NZMS 260 T20: 472-962 via controlled release mechanisms as follows:
- Via the drawdown valve at a maximum rate of 75 cubic metres per second;
 - Via the special release valve at a maximum rate of 3 cubic metres per second.
- 101281 **Water permit** - To **divert and take** water at a maximum rate of up to 25 cubic metres per second from Lake Moawhango at or about map reference NZMS 260 T20: 485-994.

Whakapapa to Mangatepopo Intakes/Western Diversion

- 101282 **Water permit** – To **dam** the Whakapapa River by means of the Whakapapa Intake structure and to **divert and take** water at a



maximum rate of up to 40 cubic metres per second from the Whakapapa River at or about map reference NZMS 260 S19: 234-289.

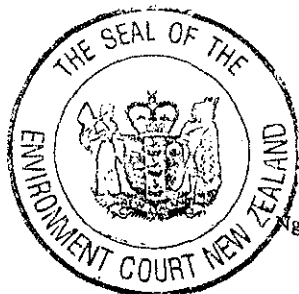
- 101283 **Water permit** – To **dam** the Okupata Stream by means of the Okupata Intake structure and to **divert** and **take** water at a maximum rate of up to 2 cubic metres per second from the Okupata Stream at or about map reference NZMS 260 S19: 287-351.
- 101284 **Water permit** – To **dam** the Taurewa Stream by means of the Taurewa Intake structure and to **divert** and **take** water at a maximum rate of up to 2 cubic metres per second from the Taurewa Stream at or about map reference NZMS 260 T19: 305-356.
- 101285 **Water permit** – To **dam** the Tawhitikuri Stream by means of the Tawhitikuri Intake structure and to **divert** and **take** water at a maximum rate of up to 2 cubic metres per second from the Tawhitikuri Stream at or about map reference NZMS 260 T19: 311-359.
- 101286 **Water permit** – To **dam** the Mangatepopo Stream by means of the Mangatepopo Intake structure and to **divert** and **take** water at a maximum rate of up to 5 cubic metres per second from the Mangatepopo Stream at or about map reference NZMS 260 T19: 313-361.
- 101287 **Discharge permit** – To **discharge** the water taken pursuant to Resource Consent Application Nos 101282, 101283, 101284, 101285 and 101286 and any material contained therein at a maximum rate of up to 51 cubic metres per second into Lake Te Whaiiau at or about map reference NZMS 260 T19: 353-395.

Whanganui Intake

- 101288 **Water permit** – To **dam** the Whanganui River by means of the Whanganui Intake structure and to **divert** and **take** water at a maximum rate of up to 14 cubic metres per second from the Whanganui River at or about map reference NZMS 260 T19: 353-386.
- 101289 **Discharge permit** – To **discharge** the water taken pursuant to Resource Consent Application No 101288 and any material contained therein at a maximum rate of up to 14 cubic metres per second into Te Whaiiau Stream at or about map reference NZMS 260 T19: 357-390.

Central Lakes/Rotoaira West

- 101290 **Water permit** – To **dam** Te Whaiiau Stream at or about map reference NZMS 260 T19: 357-398 by means of the Te Whaiiau Dam structure which forms Lake Te Whaiiau.
- 101291 **Water permit** – To **divert** and **take** water at a maximum rate of up to 74 cubic metres per second from Lake Te Whaiiau at or about map reference NZMS 260 T19: 360-398.



- 101292 **Discharge permit** – To **discharge** the water taken pursuant to Resource Consent Application No 101291 and any material contained therein at a maximum rate of up to 74 cubic metres per second into Lake Otamangakau at or about map reference NZMS 260 T19: 370-406.
- 101293 **Water permit** - To **dam** the Otamangakau Stream at or about map reference NZMS 260 T19: 367-410 by means of the Otamangakau Dam structure which forms Lake Otamangakau.
- 101294 **Discharge permit** – To **discharge** water and any material contained therein at a maximum rate of up to 3 cubic metres per second into the Otamangakau Stream downstream of the Otamanakau Dam structure via a controlled release mechanism at or about map reference NZMS 260 T19: 367-410.
- 101295 **Water permit** – To **divert** and **take** water at a maximum rate of up to 55 cubic metres per second from Lake Otamangakau at or about map reference NZMS 260 T19: 386-411.

Scheme-wide – Maintenance Activities

101296
incorporated
with 101299

Combined land use consent, water permit and discharge permit - To undertake the following activities for the purpose of maintaining structures within the Tongariro Power Development –

- (i) to **reconstruct** or **alter** any structure or part of any structure in, on, under or over the bed of a river or lake;
- (ii) to **enter**, **pass across** or **disturb** the bed of a river or lake, including for the purpose of removing or flushing accumulated bed material in order to maintain the functional integrity and operational efficiency of a structure;
- (iii) to **deposit** removed material on the bed of a river or lake;
- (iv) to **dam** and **divert** water;
- (v) to **discharge** water into water;
- (vi) to **discharge** sediment and other materials into water-

within the area bounded by maps NZMS 260 S19, T19 and T20. This includes, but is not limited to:

- The flushing, removal and deposition of accumulated sediment and debris;
- Drainage and maintenance discharges from structures, culverts, pipelines and tunnels;
- Discharges from the Whakapapa–Tawhitikuri-Whanganui Tunnel bulkhead maintenance discharge to the Tawhitikuri Stream;
- Whakapapa-Tawhitikuri-Whanganui Tunnel drain valve maintenance discharge to the Whanganui River;
- Discharges from the testing of gates and structures.

Combined land use consent, water permit and discharge permit – To undertake the following activities for the purpose of removing sediment, weed, debris, plants and other material from watercourses within the Tongariro Power Development-



- (i) to **disturb, remove, damage or destroy** any of the above in, on, under, over or adjacent to the bed of a river or lake;
- (ii) to **enter, pass across or disturb** the bed of a river or lake;
- (iii) to **divert** water;
- (iv) to **discharge** water and or any of the above into water- within the area bounded by maps NZMS 260 S19, T19 and T20.

101302 Discharge permit – To **discharge** materials onto or into land associated with the removal of sediment, weed, debris or other material from or adjacent to watercourses within the area bounded by maps NZMS 260 S19, T19 and T20.

101303 Discharge permit – To **discharge** materials into the air, onto land and into water from abrasive blasting activities associated with the maintenance of TPD structures within the area bounded by maps NZMS 260 S19, T19 and T20.

Scheme-wide – Other Activities (Manawatu-Wanganui Region)

101304 Land use consent – To **use** structures within the Tongariro Power Development for the purposes of damming, diverting, taking and conveying water; discharging water and any other materials contained therein; generating hydroelectricity; providing access across waterways (bridges); measuring flows and water quality; and any other activity necessary to enable the functioning of the Tongariro Power Development within the are bounded by maps NZMS 260 S19, T19 and T20.

101305 Land use consent – To **erect, place, alter, extend, maintain, remove or demolish** structures within the Tongariro Power Development for the purposes of measuring flows and water quality or any other monitoring within the area bounded by maps NZMS 260 S19, T19 and T20.

101306 Land use consent – To **place** structures in streams, rivers and lakes upstream of Tongariro Power Development structures for safety reasons or to prevent material entering the structures within the area bounded by maps NZMS 260 S19, T19 and T20.

101307 Combined water permit and discharge permit – To **take** water, **divert** water and **discharge** water and any material contained therein for the purpose of –

- (i) Conveying surface water and ground water around, through, over, under or past structures within the Tongariro Power Development;
- (ii) Providing for water leakage to, from and through structures within the Tongariro Power Development-

except as provided for by other resource consents, within the area bounded by maps NZMS 260 S19, T19 and T20.

101309 Water permit – To **take** up to 20 cubic metres of water per day within the area bounded by maps NZMS 260 S19, T19 and T20 for purposes related to the operation of the Tongariro Power Development other than generating hydroelectricity.



101310

Discharge permit – To **discharge** stormwater from buildings and other structures onto or into land, or into water, within the area bounded by maps NZMS 260 S19, T19 and T20.



APPENDIX 2



APPENDIX 3

Wahianoa Aqueduct Diversions Manawatu-Wanganui Region 101275

Water permit – To divert the full flow of water between tributaries of the Whangaehu River [*diverted catchments above Wahianoa Aqueduct intakes*] within the area defined by map references NZMS 260 T20: 358 000, T20: 428 990, T20: 428 980 AND T20:358 988 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Scope of consent

- 1 This exercise of this resource consent shall only apply to streams being intercepted by the Wahianoa Aqueduct prior to the commencement of this consent. The flow capacity of any of the existing diversion structures and of the Wahianoa Aqueduct shall not be increased under the exercise of this resource consent.

Responsibility for structural integrity and erosion control

- 2 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of any Wahianoa Aqueduct diversion, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from the operation of that diversion.

Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Cultural and Spiritual Matters

- 3 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with Ngati Rangit ~~with Ngati Rangit Trust, develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Ngati Rangit~~ between the Consent Holder and Ngati Rangit Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Eastern Diversion of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~consultation between the Consent Holder and Ngati Rangit Trust.~~
- ~~Provides tangata whenua~~ Ngati Rangit Trust with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Ngati Rangit Trust into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.



For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

- 4 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council and Ngati Rangi Trust a written report on the matters referred to in condition 3, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 5 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 4, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Change or Cancellation of Conditions

6. The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act at any time within one month of the anniversary each year of the commencement of this consent.

Treaty Of Waitangi Claim Settlements

7. The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Crown settling enactment of legislation which settles~~ any Treaty of Waitangi claim by iwi in respect of ~~rivers or lakes dammed or diverted~~ any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement matters contained in the said~~ legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement matters contained in the said~~ legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 8 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 7, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the ~~Crown settling enactment of legislation which settles~~ any Treaty of Waitangi



claim ~~by iwi~~ in respect of ~~rivers or lakes dammed or diverted~~ any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Wahianoa Aqueduct Take
Manawatu-Wanganui Region
101276**

Water permit – To dam, divert and take water at a maximum combined quantity of up to 9 cubic metres per second from 22 waterways [Wahianoa Aqueduct] within the area defined by map references NZMS 260 T20: 358 000, T20: 428 990, T20: 428 980 AND T20: 358 988 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Areal Extent of Consent

1 The watercourses that this consent applies to are:

Intake No.	Watercourse	Point of Take
1.	Unnamed tributary of the Whangaehu River	NZMS 260 T20:424985
2.	Unnamed tributary of the Whangaehu River	NZMS 260 T20:419985
3.	Unnamed tributary of the Whangaehu River	NZMS 260 T20:417986
4.	Unnamed tributary of the Whangaehu River	NZMS 260 T20:416986
5.	Tomowai Stream	NZMS 260 T20:414987
6.	Unnamed tributary of the Whangaehu River	NZMS 260 T20:413986
7.	Unnamed tributary of the Whangaehu River	NZMS 260 T20:409985
8.	Unnamed tributary of the Whangaehu River	NZMS 260 T20:407985
9.	Unnamed tributary of the Whangaehu River	NZMS 260 T20:404984
10.	Makahikatoa Stream	NZMS 260 T20:401984
11.	Unnamed tributary of the Wahianoa River	NZMS 260 T20:397986
12.	Unnamed tributary of the Wahianoa River	NZMS 260 T20:394986
13.	Unnamed tributary of the Wahianoa River	NZMS 260 T20:393986
14.	Unnamed tributary of the Wahianoa River	NZMS 260 T20:387987
15.	Unnamed tributary of the Wahianoa River	NZMS 260 T20:383988
16.	Unnamed tributary of the Wahianoa River	NZMS 260 T20:378988
17.	Unnamed tributary of the Wahianoa River	NZMS 260 T20:376990
18.	Wahianoa River	NZMS 260 T20:376990
19.	Unnamed tributary of the Tokiahuru Stream	NZMS 260 T20:368992
20.	Unnamed tributary of the Tokiahuru Stream	NZMS 260 T20:368992
21.	Unnamed tributary of the Tokiahuru Stream	NZMS 260 T20:364993
22.	Unnamed tributary of the Tokiahuru Stream	NZMS 260 T20:362994

Intake structure design capacity

2 The rate of water diverted and taken pursuant to this resource consent shall be deemed to comply with this consent if the capacity of each intake structure is no greater than it was at the date of commencement of this consent.

Responsibility for structural integrity and erosion control

3 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of any Wahianoa Aqueduct diversion structure, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from the operation of that structure.

Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.



Cultural and Spiritual Matters

4 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with Ngati Rangit Trust, develop a process to address the following matters on a process that provides for:

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Ngati Rangit Trust~~ between the Consent Holder and Ngati Rangit Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan that Plan for the Eastern Diversion of the TPD that:
 - ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation between the Consent Holder and Ngati Rangit Trust.
 - ~~Provides tangata whenua~~ Ngati Rangit Trust with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
 - ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Ngati Rangit Trust into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

5 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council and Ngati Rangit Trust a written report on the matters referred to in condition 4, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

6 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 5, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Change or Cancellation of Conditions

The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant



to Section 127(1)(a) of the Resource Management Act at any time within one month of the anniversary each year of the commencement of this consent.

- 8 Within 6 months of the commencement of this consent the Consent Holder shall construct a recreational bathing hole in the bed of the Whangaehu River. The location of that bathing hole shall be determined in consultation with the Ngati Rangi Trust and the Manawatu Wanganui Regional Council. The Consent Holder shall maintain the bathing hole for the duration of this consent.

Treaty Of Waitangi Claim Settlements

- 9 The Manawatu Wanganui Regional Council shall, within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 10 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 9, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Discharge to Mangaio Stream
Manawatu-Wanganui Region
101277**

Discharge permit – To discharge water taken pursuant to Resource Consent 101276 and any material contained therein at a maximum rate of up to 9 cubic metres per second into the Mangaio Stream [*Mangaio Tunnel discharge*] at or about map reference NZMS 260 T20: 446 989 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Rate of Discharge

1. The maximum rate of discharge of water to the Mangaio Stream shall not exceed 9 cubic metres per second as measured at the outlet of the Mangaio Tunnel.

Discharge Restrictions

2. Discharge to the Mangaio Stream shall cease when:
 - i The water level in Lake Moawhango is at or above 851.6 metres above Moturiki Datum, is rising and spill is likely to occur from the lake;
 - ii The pH of water in the Wahianoa Aqueduct at Gate 51 is less than 5.
3. The Consent Holder shall operate and maintain two lahar detection devices at the following locations:
 - i At or upstream of NZMS 260 T20: 376-989 (upstream of the Wahianoa Intake).
 - ii At or upstream of NZMS 260 T20: 393-093 (on the Whangaehu River).
4. In the event that the lahar monitoring devices identified in condition 3 indicate that a lahar is likely to pass down the Wahianoa Aqueduct, the Mangaio Gate [Gate 51] shall be shut to prevent contaminated water entering the Mangaio Stream. The Mangaio Gate [Gate 51] shall remain closed until such time as the pH of water in Wahianoa Aqueduct exceeds 5.
5. The lahar detection devices located in accordance with condition 3 and the system triggering the closure of the gate shall be automated and shall be maintained in a sound working condition and tested every 6 months. The results of the tests shall be documented and provided to the Manawatu Wanganui Regional Council within 10 working days of their completion.

Flow and pH monitoring

6. The Consent Holder shall monitor the flow into the Mangaio Stream and the pH of water in the Wahianoa Aqueduct on a continuous basis and shall provide copies of that information to the Manawatu Wanganui Regional Council within 5 working days upon request.

Responsibility for erosion control

7. The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of the Mangaio Tunnel discharge point into the Mangaio Stream, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from that discharge.



Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Volcanic Activity Management Plan

8. Within twelve months of the commencement of this consent, the Consent Holder shall prepare a Volcanic Activity Management Plan to the satisfaction of the Manawatu Wanganui Regional Council. The Management Plan shall be prepared following consultation with the Department of Conservation, the Ruapehu District Council, Taupo District Council, the New Zealand Defence Force and the Manawatu Wanganui Regional Council. The purpose of the Plan shall be to detail procedures for the management of TPD structures in order to minimise, to the greatest extent practicable, risks to property, life and the natural environment arising from the operation of TPD structures during or following lahar flows and other volcanic events.

The plan shall include:

- i an assessment of key environmental risks arising from the operation of TPD structures during or following a volcanic event.
- ii a description of the procedures to be followed to minimise these risks.
- iii the communications to be undertaken by the Consent Holder in order to give effect to the plan.

9. This consent shall be exercised in accordance with the Volcanic Activity Management Plan prepared in accordance with condition 8. Where there is any inconsistency between the provisions of the Volcanic Activity Management Plan and the conditions of this consent, then the conditions of this consent shall prevail.

Cultural and Spiritual Matters

10 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with Ngati Rangit Trust, develop a process to address the following matters on a process that provides for:

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Ngati Rangit~~ between the Consent Holder and Ngati Rangit Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Eastern Diversion of the TPD that:
 - ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation/consultation between the Consent Holder and Ngati Rangit Trust.
 - ~~Provides tangata whenua~~ Ngati Rangit Trust with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
 - ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Ngati Rangit Trust into the formulation and



implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

- 11 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council and Ngati Rangi Trust a written report on the matters referred to in condition 10, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 12 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 11, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Change or cancellation of consent conditions

- 13 The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act at any time within one month of the anniversary each year of the commencement of this consent.

Treaty Of Waitangi Claim Settlements

- 14 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Crown settling~~ enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted ~~any rivers, lakes or other waterways dammed or diverted or otherwise affected~~ by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~ matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~ matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 14, by giving notice of its intention to do so pursuant to section



127(1)(a) of the Resource Management Act 1991 within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Wahianoa Aqueduct Discharges to Whangaehu
Manawatu-Wanganui Region
101278**

Discharge permit – To discharge water taken pursuant to Resource Consent 101276 and any material contained therein into the waterways below intakes 2 to 22 [*Wahianoa Aqueduct discharge*] within the area defined by map references NZMS 260 T20: 358 000, T20: 428 990, T20: 428 980 AND T20: 358 988 for the purpose of draining waters from the Wahianoa Aqueduct for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Areal Extent of Consent

1 The watercourses that this consent applies to are:

Intake No.	Watercourse	Point of Take
2	Unnamed tributary of the Whangaehu River	NZMS 260 T20:419985
3	Unnamed tributary of the Whangaehu River	NZMS 260 T20:417986
4	Unnamed tributary of the Whangaehu River	NZMS 260 T20:416986
5	Tomowai Stream	NZMS 260 T20:414987
6	Unnamed tributary of the Whangaehu River	NZMS 260 T20:413986
7	Unnamed tributary of the Whangaehu River	NZMS 260 T20:409985
8	Unnamed tributary of the Whangaehu River	NZMS 260 T20:407985
9	Unnamed tributary of the Whangaehu River	NZMS 260 T20:404984
10	Makahikatoa Stream	NZMS 260 T20:401984
11	Unnamed tributary of the Wahianoa River	NZMS 260 T20:397986
12	Unnamed tributary of the Wahianoa River	NZMS 260 T20:394986
13	Unnamed tributary of the Wahianoa River	NZMS 260 T20:393986
14	Unnamed tributary of the Wahianoa River	NZMS 260 T20:387987
15	Unnamed tributary of the Wahianoa River	NZMS 260 T20:383988
16	Unnamed tributary of the Wahianoa River	NZMS 260 T20:378988
17	Unnamed tributary of the Wahianoa River	NZMS 260 T20:376990
18	Wahianoa River	NZMS 260 T20:376990
19	Unnamed tributary of the Tokiahuru Stream	NZMS 260 T20:368992
20	Unnamed tributary of the Tokiahuru Stream	NZMS 260 T20:368992
21	Unnamed tributary of the Tokiahuru Stream	NZMS 260 T20:364993
22	Unnamed tributary of the Tokiahuru Stream	NZMS 260 T20:362994

Responsibility for erosion control

2 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of any Wahianoa Aqueduct discharge listed in condition 1, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from that discharge.

Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Public warning

3 Within 6 months of the commencement of this resource consent, the Consent Holder shall develop a system, to the satisfaction of the Manawatu Wanganui Regional Council, for warning potentially affected members of the public and potentially affected downstream property owners or occupiers of the likely increase in flows downstream of intakes 2 to 5 inclusive when this consent is exercised.



Cultural and Spiritual Matters

4 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement ~~Ngati Rangiw~~ Ngati Rang Trust, ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Ngati Rang~~ between the Consent Holder and Ngati Rang Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Eastern Diversion of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~consultation between the Consent Holder and Ngati Rang~~ Trust.
- ~~Provides tangata whenua~~ Ngati Rang Trust with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Ngati Rang Trust into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

5 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council and Ngati Rang Trust a written report on the matters referred to in condition 4, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

6 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 5, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Change or cancellation of consent conditions

The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant



to Section 127(1)(a) of the Resource Management Act at any time within one month of the anniversary each year of the commencement of this consent.

Treaty Of Waitangi Claim Settlements

8 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Crown settling~~enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of ~~rivers or lakes dammed or diverted~~any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

9 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 8, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the ~~Crown settling~~enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of ~~rivers or lakes dammed or diverted~~any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Moawhango Dam
Manawatu-Wanganui Region
101279**

Water permit – To dam the Moawhango River [*Moawhango Dam*] at or about map reference NZMS 260 T20: 472 962 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Dam specifications

- 1 The dam spillway crest shall be maintained at 852.1 metres above Moturiki Datum and the width of the spillway shall be maintained at 128.1 metres. Compliance with this condition shall be satisfied provided that the dimensions are not altered from those existing at the date of commencement of consent.

Minimum Lake level

- 2 The normal minimum lake operating level shall be 835.75 metres above Moturiki datum. The Lake may be drawn down below this level for maintenance or dam safety purposes. In the event of this occurring, notification shall be provided to the Manawatu Wanganui Regional Council within 48 hours of the event.

Willow Control

3. Commencing in the year following the commencement of this consent and for each subsequent year that this consent is exercised, the Consent Holder shall undertake and maintain willow control measures on the Moawhango River in the vicinity of the Moawhango Village at a rate of not less than 200 metres per annum, as set out in the Willow Control Management Plan prepared pursuant to condition 4.
4. Within six months of the commencement of this consent, the Consent Holder shall prepare a Willow Control Management Plan to the satisfaction of the Manawatu Wanganui Regional Council, that sets out the specific measures to be utilised to satisfy the requirements of condition 3.

The Willow Control Management Plan shall be prepared and updated annually, following consultation with the Moawhango community, the Department of Conservation and the Manawatu Wanganui Regional Council.

Dam safety

5. The Consent Holder shall have in place a Dam Safety Assurance Programme in accordance with the Dam Safety Guidelines issued by the New Zealand Society on Large Dams, dated November 1995 and as updated from time to time. Reports documenting the findings of surveillance, inspections and safety reviews shall be made available to the Manawatu Wanganui Regional Council upon request.

Lakeshore Erosion Monitoring and Responsibility For Lakeshore Erosion Control

6. The consent holder shall undertake monitoring of lakeshore erosion adjacent to the existing access road from the confluence of the Mangaio Stream with Lake Moawhango to a position 1 kilometre east of the Moawhango Dam. If in the opinion of the Manawatu Wanganui Regional Council any lakeshore erosion poses a risk to the structural integrity or safe use of the access road then, in consultation with the New Zealand Defence Force and the Ruapehu District Council, the consent holder shall design and implement lakeshore erosion



protection works and/or road repairs to the satisfaction of the Manawatu Wanganui Regional Council. The consent holder shall be responsible for the maintenance of any erosion control works established under the requirements of this consent condition.

Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at their sole expense prior to any works being undertaken.

Cultural and Spiritual Matters

7 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with Ngati Rangit Trust, develop a process to address the following matters on a process that provides for:

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Ngati Rangit Trust~~ between the Consent Holder and Ngati Rangit Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Eastern Diversion of the TPD that:
 - ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co operative environment to facilitate~~ Facilitates on-going consultation between the Consent Holder and Ngati Rangit Trust.
 - ~~Provides tangata whenua~~ Ngati Rangit Trust with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
 - ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Ngati Rangit Trust into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

8 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council and Ngati Rangit Trust a written report on the matters referred to in condition 7, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

9 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 8, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.



For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Change or cancellation of consent conditions

- 10 The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act at any time within one month of the anniversary each year of the commencement of this consent.

Treaty Of Waitangi Claim Settlements

- 11 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Crown settling~~enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of ~~rivers or lakes dammed or diverted~~any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 12 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 11, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the ~~Crown settling~~enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of ~~rivers or lakes dammed or diverted~~any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



Community facilities

Subject to being able to obtain landowner access and the necessary resource consents, the Consent Holder has agreed to install the "Community Amenity Facilities", as generally defined in the plan attached to this consent. The Consent Holder has agreed to install these facilities with 12 months of the commencement of this consent. The Consent Holder has also agreed to maintain these facilities for three years following their completion.

Private Agreements

In granting this consent particular regard has been had to the agreements reached by the Consent Holder with Ngati Tamakopiri, Ngati Whitikopeka and Ngati Hauiti, and with the Wellington and Taranaki Fish and Game Councils.



**Moawhango Dam Discharge
Manawatu-Wanganui Region
101280**

Discharge permit – To discharge water and any material contained therein into the Moawhango River downstream of the Moawhango Dam structure [*Moawhango Dam discharge*]:

- i. Via the drawdown valve at a maximum rate of 75 cubic metres per second; and
- ii. Via the special release valve at a maximum rate of 3 cubic metres per second, and
- iii. Via the dam spillway.

at or about map reference NZMS 260 T20: 472 962 for a duration of 35 years from the commencement of this resource consent subject to the following conditions

Public warning system

- 1 As soon as practicable, but no later than 12 months following the commencement of this consent, the Consent Holder shall develop, to the satisfaction of the Manawatu Wanganui Regional Council, a system for warning members of the public and downstream property owners and occupiers when the discharge from the drawdown valve reaches 30 cubic metres per second or when flows occur over the spillway. The Consent Holder shall consult with the NZ Defence Force, property owners and occupiers adjacent to the Moawhango River from the dam to Moawhango Village, the Moawhango community generally, the Ruapehu and Rangitikei District Councils and the Manawatu Wanganui Regional Council regarding the development of the warning system.

Responsibility for structural integrity and erosion control

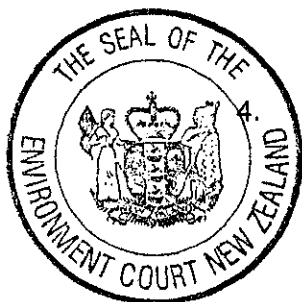
- 2 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of any discharge authorised under this consent, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from that discharge.

Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Flushing flows

3. The Consent Holder shall ensure that a minimum of four flushing flows from the Moawhango Dam to the Moawhango River occur during each summer that this consent is in force and as further defined in Condition 4. The magnitude of each flushing flow shall be not less than 30 cubic metres per second at the point of discharge from the dam. For the purposes of this condition, this flow is deemed to be that provided by opening the drawdown valve in accordance with the established rating curve for the valve (as attached to and forming part of this consent or the most recent updated rating provided in accordance with condition 6) to at least the opening required to maintain a flow of 30 cubic metres per second. The drawdown valve shall be opened in stages over a one hour period, held at the opening required to maintain a flow of 30 cubic metres per second for a period of at least nine hours, and closed in stages over a one hour period.

Unless otherwise agreed in writing by the Manawatu Wanganui Regional Council following Consent Holder consultation with the Moawhango community,



the flushing flow shall occur in each of the months of December, January, February and March. Two of the four flushing flows shall commence on days and at times fixed in consultation with the New Zealand Recreational Canoeing Association. The two flushing flows not fixed in consultation with the New Zealand Recreational Canoeing Association shall occur during the first natural fresh that occurs in the Moawhango River during each month, except that if a natural fresh has not occurred by the 21st day of any month, the flushing flows shall commence from the Moawhango Dam at 5 am on the following Monday.

Minimum residual flow

5. Upon the commencement of this consent, the Consent Holder shall provide a continuous flow release from the Moawhango Dam to the Moawhango River of not less than 600 litres per second at the point of discharge from the dam. For the purposes of this condition, this flow is deemed to be that provided by opening the special release valve in accordance with the established rating curve (attached to and forming part of this consent) for the valve to at least the opening required to maintain a flow of not less than 600 litres per second.

Discharge ratings

- 6 The Consent Holder shall maintain and update discharge ratings for the drawdown valve and special release valve. The ratings for the drawdown valve and special release valve shall be verified by alternative means of measurement within 3 months following the commencement of this consent. The results of that verification exercise shall be provided to the Manawatu Wanganui Regional Council within 10 working days of their completion.

Consultative meetings

7. During each year that this consent is exercised, the Consent Holder shall invite representatives of the Moawhango community, tangata whenua, and conservation and recreation interests to attend a Consultative Meeting to be held during the month of July. The Consent Holder shall notify its intention to hold a consultative meeting by public notice in a newspaper circulating in the area at least fourteen days and not more than one month in advance of the meeting.

The purpose of the Consultative Meeting is to provide an opportunity to discuss all matters pertaining to this consent, including, but not limited to, the results of monitoring undertaken pursuant to this consent.

8. The Consent Holder shall circulate minutes of the Consultative Meeting to all attendees and the Manawatu Wanganui Regional Council within one month of the meeting.
9. Information on the flow in the Moawhango River at the Moawhango Village at NZMS 260 T21: 557-745 shall be made available to the public via a free telephone system. The flow information provided shall be updated hourly.

Eastern Diversion Monitoring Plan

- 10 Within 6 months following the commencement of this resource consent the Consent Holder shall prepare an Eastern Diversion Monitoring Plan to the satisfaction of the Manawatu Wanganui Regional Council. That Plan shall relate to the exercise of consents 101277, 101279 and 101280.

The aim of the Plan shall be to detail the type, frequency and location of monitoring that will be undertaken by the Consent Holder to assess the effects of



the discharges from Lake Moawhango on: algal and periphyton growth in the Moawhango River; the invertebrate community present in the Moawhango River; and the potential effects of lake stratification on the Moawhango River, and the potential erosion of the edge of Lake Moawhango.

Changes to the Plan may be made on an annual basis, subject to the approval of the Manawatu Wanganui Regional Council, following the receipt by the Manawatu Wanganui Regional Council of the Report specified in condition 11 of this consent.

The Plan shall address:

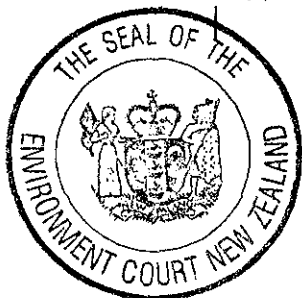
- i. methodologies and procedures to monitor flow into the Mangaio Stream and the pH of water in the Wahianoa Aqueduct as required by condition 7 of consent 101277,
- ii. methodologies and procedures to assess the abundance and composition of algae, periphyton and invertebrates in the Moawhango River between the dam and the Moawhango Village,
- iii. methodologies and procedures to assess water temperature downstream of the dam,
- iv. methodologies and procedures to assess water quality of the discharge authorised by this consent in terms of dissolved oxygen, iron, manganese and soluble nutrients in the Moawhango River above the Aorangi Stream confluence so that the potential occurrence and consequential effects of thermal stratification within Lake Moawhango can be determined,
- v. methodologies and procedures, developed after consultation with the Department of Conservation, to assess the adequacy of the minimum residual flow established by condition 5 of this consent in terms of its ability to support an invertebrate community generally representative (in terms of abundance and composition) of a healthy high country lake fed watercourse in the Moawhango River above the Aorangi Stream confluence,
- vi. methodologies and procedures to assess the adequacy of the flushing flows established by condition 3 of this consent in terms of their ability to improve the physical and biological characteristics of the Moawhango River (particularly algal proliferations and offensive odours) between the dam and the Moawhango Village,
- vii. methodologies and procedures to assess the extent and magnitude of shoreline erosion at Lake Moawhango adjacent to the access road from the confluence of the Mangaio Stream with Lake Moawhango to a position 1 kilometre east of the Moawhango Dam as required by condition 6 of consent 101279. These methodologies are to be developed in consultation with the New Zealand Defence Force, and shall include an initial baseline survey, regular ongoing monitoring, and utilise information derived from any previous lakeshore erosion monitoring undertaken by the Consent Holder,
- viii. the standards and guidelines that any monitoring activities shall be designed in accordance with or required to comply with.

Reporting

11

The Consent Holder shall provide to the Manawatu Wanganui Regional Council and Ngati Rangī Trust a written report by 31 August each year that this consent is current. As a minimum this report shall include the following:

- i. all data collected as required under condition 10 of this resource consent.



- ii. a summary of the monitoring results required by condition 10 of this resource consent and a critical analysis of that information in terms of compliance and environmental effects,
- iii. a comparison of data with previously collected data identifying any emerging trends,
- iv. comment on compliance with conditions of consents 101277, 101279 and this consent,
- v. any reasons for non-compliance or difficulties in achieving compliance with the conditions of consents 101277, 101279 and this consent,
- vi. any works that have been undertaken to improve the environmental performance of the TPD activities authorised by consents granted by the Manawatu Wanganui Regional Council, and any such works that the Consent Holder proposes to undertake in the following 12 months ,
- vii. recommendations on alterations to the monitoring required by condition 10 of this consent,
- viii. any other issues considered important by the Consent Holder.
- ix. report on and discuss complaints received regarding the activities authorised by consents 101277, 101279 and 101280 and consents 101296, 101302, 101303, 101304, 101306, 101307, 101309 and 101310 which authorise the scheme wide maintenance of structures and activities relating to the TPD.
- x. report on and discuss feedback received from any community liaison activities.

Consent Review

12 The Manawatu Wanganui Regional Council may in June of the fifth year after the commencement of this resource consent, and in June every 5 years thereafter, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review conditions 3, 4 and 5 in terms of their adequacy in avoiding, remedying or mitigating adverse effects on the environment and to amend those conditions or add further conditions if necessary.

Specific purposes of the review shall be:

- i. to review the adequacy of the flushing flows specified in condition 3 in terms of their ability to improve the physical and biological characteristics of the Moawhango River from the Moawhango Dam to the Moawhango Village (particularly algal proliferations and offensive odours), and to amend that condition or add further conditions if necessary, and
- ii. to review the adequacy of the minimum flow specified in condition 5 in terms of its ability to maintain an invertebrate community containing species representative of a high country lake fed watercourse in the Moawhango River from the Moawhango Dam to the confluence with the Aorangi Stream, and to amend that condition or add further conditions if necessary; and
- iii. to evaluate the results of the Moawhango River monitoring specified in this consent and to amend the conditions of this resource consent or add further conditions if necessary to avoid, remedy or mitigate any adverse effects identified by that monitoring.

Advice Note: Costs associated with any review of the conditions of this resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act 1991.



Cultural and Spiritual Matters

13 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with Ngati Rangit ~~with Ngati Rangit Trust, develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Ngati Rangit~~ between the Consent Holder and Ngati Rangit Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Eastern Diversion of the TPD that:
 - ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~consultation between the Consent Holder and Ngati Rangit Trust.~~
 - Provides ~~tangata whenua~~ Ngati Rangit Trust with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
 - ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Ngati Rangit Trust into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

14 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council and Ngati Rangit Trust a written report on the matters referred to in condition 13, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

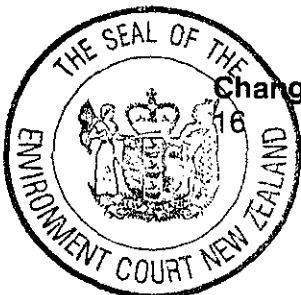
Consent Review (Cultural and Spiritual Matters)

15 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 14, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Change or cancellation of consent conditions

The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant



to Section 127(1)(a) of the Resource Management Act at any time within one month of the anniversary each year of the commencement of this consent.

Treaty Of Waitangi Claim Settlements

- 17 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Crown settling~~enactment of legislation which settles any Treaty of Waitangi claim ~~by iwi~~ in respect of ~~rivers or lakes dammed or diverted~~any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 18 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 17, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the ~~Crown settling~~enactment of legislation which settles any Treaty of Waitangi claim ~~by iwi~~ in respect of ~~rivers or lakes dammed or diverted~~any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.

Private Agreements

In granting this consent particular regard has been had to the agreements reached by the Consent Holder with Ngati Tamakopiri, Ngati Whitikopeka and Ngati Hauti, and with the Wellington and Taranaki Fish and Game Councils.



**Lake Moawhango Take
Manawatu-Wanganui Region
101281**

Water permit – To divert and take water at a maximum rate of up to 25 cubic metres per second from Lake Moawhango [*Moawhango Tunnel*] at or about map reference NZMS 260 T20: 484 994 for a duration of 35 years from the commencement of this resource consent subject to the following conditions

Intake structure design capacity

- 1 The rate of water diverted and taken pursuant to this resource consent shall be deemed to comply with this consent if the capacity of the intake structure is no greater than it was at the date of commencement of this consent.

Cultural and Spiritual Matters

- 2 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with Ngati Rangī Trust, ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation with Ngati Rangī between the Consent Holder and Ngati Rangī Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Eastern Diversion of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation between the Consent Holder and Ngati Rangī Trust.
- ~~Provides tangata whenua~~ Ngati Rangī Trust with full opportunity to formulate appropriate kaitiaki protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Ngati Rangī Trust into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

- 3 The Consent Holder shall, ~~during calendar year in~~ February 2009, provide to the Manawatu Wanganui Regional Council and Ngati Rangī Trust a written report on the matters referred to in condition 2, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 4 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 3, serve notice on the Consent Holder under



section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Treaty Of Waitangi Claim Settlements

- 5 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Crown settling~~enactment of legislation which settles any Treaty of Waitangi claim ~~by iwi in respect of rivers or lakes dammed or diverted~~any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 6 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 5, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the ~~Crown settling~~enactment of legislation which settles any Treaty of Waitangi claim ~~by iwi in respect of rivers or lakes dammed or diverted~~any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

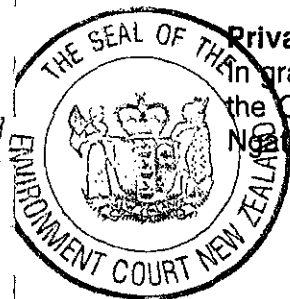
GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.

Private Agreements

In granting this consent particular regard has been had to the agreements reached by the Consent Holder with Ngati Tuwharetoa, Ngati Tamakopiri, Ngati Whitikopeka and Ngati Hauiti.



**Whakapapa Intake
Manawatu-Wanganui Region
101282**

Water permit – To dam the Whakapapa River by means of the Whakapapa Intake structure and to divert and take water at a maximum rate of up to 40 cubic metres per second from the Whakapapa River at or about map reference NZMS 260 S19: 234 289 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Intake structure design capacity

- 1 The rate at which water is taken and diverted pursuant to this resource consent shall be deemed to comply with the conditions of this consent provided the capacity of the intake structure is not increased above its capacity as at the date of commencement of this consent.

Minimum flow in the Whakapapa River

- 2 Subject to condition 3, the Consent Holder shall exercise this consent in such a way that the flow in the Whakapapa River at or about map reference NZMS 260 S19: 226-295 does not fall below 3 cubic metres per second or the natural flow of the river, whichever is less.
3. The flow in the Whakapapa River at or about map reference NZMS 260 S19: 226-295 may fall below 3 cubic metres per second as a result of the exercise of this resource consent for not more than 5% of any day, provided that:
- i When the flow at or about map reference NZMS 260 S19: 226-295 drops below 3 cubic metres per second the Consent Holder shall take immediate action to restore the flow to 3 cubic metres per second or the natural flow whichever is less; and
 - ii The flow shall not be less than 3 cubic metres per second for more than one hour at any time as a result of the taking of water by the Consent Holder; and
 - iii The flow shall not fall below 2.8 cubic metres at any time as a result of the taking of water by the Consent Holder.

Advice Note: The purpose of condition 3 is to allow the flow to drop below that specified in condition 2 only when:

- Reasonable projections of flow recession made by the Consent Holder have not occurred; or
- Other events beyond the direct control of the Consent Holder have occurred.

Flow Maintenance

- 3A. Commencing by 0900 hours on two separate weekend days each calendar year, the Consent Holder shall, subject to condition 3B, exercise this consent such that the natural flow of the Whakapapa River is released from the Whakapapa Intake to the Whakapapa River, for a period of not less than eight consecutive hours on each occasion.

- 3B. Notwithstanding condition 3A, if the natural flow in the Whakapapa River is less than 16 cubic metres per second on any day in which a flow release is proposed pursuant to condition 3A, then that flow release shall be rescheduled to occur on another separate weekend day, provided that the natural flow on that day is not less than 16 cubic metres per second. The Consent Holder shall



liase with a representative appointed by the New Zealand Recreational Canoeing Association in relation to the rescheduling of any such flow release.

- 3C. Subject to condition 6(a) of resource consent 103875, in the event that any rescheduled flow required by condition 3B above is not required to occur, because the natural flow is less than 16 cubic metres per second, then the Consent Holder shall have no further obligation in respect of that flow release.
- 3D. The dates on which the flow releases described in conditions 3A to 3B above shall occur shall be determined on an annual basis between the Consent Holder and a representative appointed by the New Zealand Recreational Canoeing Association.
- 3E. If it is unlikely that flows will be sufficient for natural releases, the Consent Holder shall inform the Regional Council and a representative appointed by the New Zealand Recreational Canoeing Association a minimum of 24 hours prior to the scheduled release and take all reasonable steps to ensure that the public are also informed.
- 3F. The Consent Holder shall keep records of the time, duration and rate of release of all discharges made under this condition and forward a copy to the Regional Council within one week of the discharge occurring.

Monitoring the Whakapapa River flow

- 4 The Consent Holder shall monitor the flow in the Whakapapa River at or about map reference NZMS 260 S19: 226-295 on a continuous basis. Records of this flow monitoring shall be provided to the Manawatu Wanganui Regional Council within 5 workings days upon request.
- 5 The Consent Holder shall maintain a flow-rating curve for the Whakapapa River at or about map reference NZMS 260 S19: 226-295. This flow-rating curve shall be maintained so that it shows the true flow plus or minus 8% for 95% of the time.

Minimum flow in the Whanganui River

6. Other than provided for by condition 7 of this resource consent, the Consent Holder shall exercise this consent and consents 101288 and 101294 in such a way that the flow in the Whanganui River between 1 December and 30 May inclusive at or about map reference NZMS 260 S19: 998-490 (Te Maire) does not fall below 29 cubic metres per second, or the natural flow of the river, whichever is less.
7. The flow in the Whanganui River at or about map reference NZMS 260 S19: 998-490 (Te Maire) may fall below 29 cubic metres per second between 1 December and 30 May inclusive as a result of the exercise of this resource consent for not more than 10% of any week, provided that:
- i The Consent Holder shall take immediate action to maintain a flow of 29 cubic metres per second or the natural flow whichever is less, when it becomes apparent that the flow is likely to fall below 29 cubic metres per second;
 - ii The flow shall not fall below 28.5 cubic metres for more than 8 hours per day as a result of the taking of water by the Consent Holder; and
 - iii The flow shall not fall below 28 cubic metres per second at any time as a result of the taking of water by the Consent Holder.



Advice Note: The purpose of condition 7 is to allow the flow to drop below that specified in condition 6 only when:

- *Reasonable projections of flow recession made by the Consent Holder have not occurred; or*
- *Other events beyond the direct control of the Consent Holder have occurred.*

Monitoring of the Whanganui River

8. The Consent Holder shall monitor the flow in the Whanganui River at or about map reference NZMS 260 S19: 998-490 (Te Maire) on a continuous basis. Records of this flow monitoring shall be provided to the Manawatu Wanganui Regional Council within 5 working days upon request.
9. The Consent Holder shall maintain a flow-rating curve for Whanganui River at or about map reference NZMS 260 S19: 998-490 (Te Maire). This flow-rating curve shall be maintained so that it shows the true flow plus or minus 8% for 95% of the time.

River flow information

10. Information on the flow in the Whakapapa River at NZMS 260 S19: 226-295 (Footbridge) shall be made available to the public via a free telephone system upon the commencement of this consent and on the Consent Holder's website within 12 months of the commencement of this consent. The flow information provided shall be updated hourly.

Lahar Detection

11. The Consent Holder shall maintain two lahar detection devices at the following locations:
 - i On the Whakapapaiti Stream at or upstream of map reference NZMS 260 S19: 236 225 (at SH 47 Bridge).
 - ii On the Whakapapanui Stream at or upstream of map reference NZMS 260 S19: 267 256 (at SH 47 Bridge).
12. In the event that the lahar detection devices identified in condition 11 indicate that a lahar is likely to pass down the Whakapapa River, the Whakapapa Intake shall be shut to prevent contaminated water entering the Whakapapa – Tawhitikuri Tunnel.
13. The lahar detection devices located in accordance with condition 11 and the system triggering the closure of the intake shall be automated and shall be maintained in a sound working condition and tested by the Consent Holder every 3 months. The results of the tests shall be documented and provided to the Manawatu Wanganui Regional Council within 10 working days of their completion.
14. This consent shall be exercised in accordance with the Volcanic Activity Management Plan prepared in accordance with resource consent 101277. Where there is any inconsistency between the provisions of the Volcanic Activity Management Plan and the conditions of this consent, then the conditions of this consent shall prevail.

Intake specifications

The Whakapapa River intake structure spillway crest shall be maintained at 680.8 metres above Moturiki Datum and the width of the spillway shall be maintained



at 36.6 metres. Compliance with this condition shall be satisfied provided that the dimensions are not altered from those existing at the date of commencement of this consent.

Responsibility for structural integrity and erosion control

16. The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of the Whakapapa Intake structure, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from the operation of that structure.

Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Western Diversion Monitoring Plan

17. Within 6 months following the commencement of this resource consent the Consent Holder shall prepare a Western Diversion Monitoring Plan to the satisfaction of the Manawatu Wanganui Regional Council. That Plan shall relate to the exercise of consents 101282, 101286, 101288, 101290, 101293 and 101294.

The aim of the Plan shall be to detail the type, location and frequency of monitoring that will be undertaken by the Consent Holder to assess the effectiveness of minimum release or residual flows on the aquatic ecosystems (particularly blue duck habitat) and natural character of the watercourses affected by those activities.

Changes to the Plan may be made on an annual basis, subject to the approval of the Manawatu Wanganui Regional Council, following the receipt by the Manawatu Wanganui Regional Council of the Report specified in condition 18 of this consent.

The Plan shall address:

- i methodologies and procedures to assess the state and extent of blue duck populations in the Whakapapa, Mangatepopo and Whanganui Rivers between the locations of the take and diversion structures to the confluence of the Whakapapa and Whanganui Rivers,
- ii methodologies and procedures to assess the state and extent of trout and native fish populations in the Whakapapa, Mangatepopo and Whanganui Rivers from the locations of the take and diversion structures to the confluence of the Whakapapa and Whanganui Rivers,
- iii methodologies and procedures to assess the abundance and composition of algae, periphyton and invertebrates in the Whakapapa, Mangatepopo and Whanganui Rivers from the locations of the take and diversion structures to the confluence of the Whakapapa and Whanganui Rivers,
- iv methodologies and procedures to assess the adequacy of the minimum residual flows established by consents 101282, 101286, and 101288 in terms of their ability to safeguard blue duck habitat,
- v the standards and guidelines that any monitoring activities shall be designed in accordance with or required to comply with.

Reporting

18. The Consent Holder shall provide to the Manawatu Wanganui Regional Council, the Ruapehu District Council, and the Whanganui River Maori Trust



Board and Tamahaki Incorporated Society a written report by 31 August each year that this consent is current. As a minimum this report shall include the following:

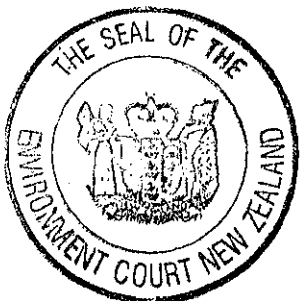
- i all data collected as required under conditions 4, 8 and 17 of this resource consent.
- ii a summary of the monitoring results required by conditions 4, 8 and 17 of this resource consent and a critical analysis of that information in terms of compliance and environmental effects,
- iii a comparison of data with previously collected data identifying any emerging trends in terms of potential adverse effects on aquatic ecosystems or the natural character of watercourses directly affected by the operation of the TPD,
- iv comment on compliance with conditions of consents 101282, 101286, 101288, 101290, 101293 and 101294,
- v any reasons for non-compliance or difficulties in achieving compliance with the conditions of consents 101282, 101286, 101288, 101290, 101293 and 101294,
- vi any works that have been undertaken to improve the environmental performance of the TPD activities authorised by consents granted by the Manawatu Wanganui Regional Council, and any such works that the Consent Holder proposes to undertake in the following 12 months,
- vii recommendations on alterations to the monitoring required by conditions 4, 8 and 17 of this consent,
- viii any other issues considered important by the Consent Holder,
- ix report on and discuss complaints received regarding the activities authorised by consents 101282, 101286, 101288, 101290, 101293 and 101294 and consents 101296, 101302, 101303, 101304, 101306, 101307, 101309 and 101310 which authorise the scheme wide maintenance of structures and activities relating to the TPD,
- x report on and discuss feedback received from any community liaison activities.
- xi identification of each time the provisions of conditions 3 and 7 have been utilised and the reasons why these have occurred.

Consent Review

19. The Manawatu Wanganui Regional Council may in June of the fifth year after the commencement of this resource consent, and every 5 years thereafter, serve notice on the Consent Holder under section 128 (1)(a)(iii) of the Resource Management Act 1991 of its intention to review conditions 2 to 18 in terms of their adequacy in avoiding, remedying or mitigating adverse effects on the environment and to amend those conditions or add further conditions if necessary.

Specific purposes of the review shall be:

- i to review the adequacy of the minimum flows specified in conditions 2 and 6 in terms of their ability to safeguard the lifesupporting capacity of the Whakapapa and Whanganui River ecosystems to the extent contemplated at the time of commencement of this consent, and to amend those conditions or add further conditions if necessary.
- ii to review the locations of the minimum flow monitoring sites listed in conditions 4 and 8 in order to determine if additional or alternative monitoring sites located closer to the points of take on the Whakapapa and Whanganui Rivers are appropriate.



- iii to review conditions 3 and 7 for the purpose of ensuring that flow projections undertaken by the Consent Holder are appropriate for meeting the requirements of conditions 2 and 6.

Advice Note: Costs associated with any review of the conditions of this resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act 1991.

Dam safety

- 20 The Consent Holder shall undertake an annual surveillance inspection to ensure that the dam and associated structures are structurally sound, pose no undue risk to life or property and are able to perform satisfactorily under all foreseeable circumstances. This inspection shall be undertaken by an appropriately qualified Civil Engineer.

Cultural and Spiritual Matters

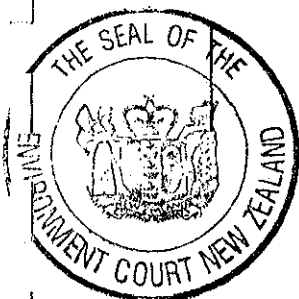
- 21 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi"), ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Western Diversion of the TPD that:
 - ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation consultation between the Consent Holder and Whanganui iwi.
 - ~~Provides tangata whenua~~ Whanganui iwi with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
 - ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

22

The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui River Maori Trust Board and Tamahaki Incorporated Society a written report on the matters referred to in condition 21, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.



Consent Review (Cultural and Spiritual Matters)

- 23 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 22, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Change or cancellation of consent conditions

- 24 The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act 1991 at any time within one month of the anniversary each year of the commencement of this consent.

Treaty Of Waitangi Claim Settlements

- 25 The Manawatu Wanganui Regional Council shall, within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

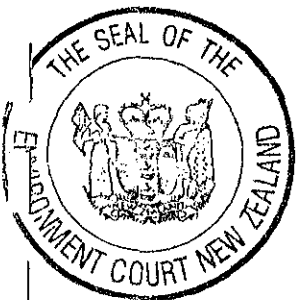
- 26 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 25, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:**Administration charges**

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying



out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Okupata Take
Manawatu-Wanganui Region
101283**

Water permit – To dam the Okupata Stream by means of the Okupata Intake structure and to divert and take water at a maximum rate of up to 2 cubic metres per second from the Okupata Stream at or about map reference NZMS 260 S19: 287 351 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Intake structure design capacity

- 1 The rate at which water is taken and diverted pursuant to this resource consent shall be deemed to comply with the conditions of this consent provided the capacity of the intake structure is not increased above its capacity as at the date of commencement of this consent.

Dam specifications

- 2 The intake structure spillway crest shall be maintained at 704.1 metres above Moturiki Datum and the width of the spillway shall be maintained at 12.2 metres. Compliance with this condition shall be satisfied provided that the dimensions are not altered from those existing at the date of commencement of this consent.

Responsibility for structural integrity and erosion control

- 3 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of the Okupata Intake structure, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from the operation of that structure.

Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Cultural and Spiritual Matters

- 4 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi"), ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that Plan for the Western Diversion of the TPD that:~~

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~consultation between the Consent Holder and Whanganui iwi.~~
- ~~Provides tangata whenua~~ Whanganui iwi with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.



- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~
Provides for the input of advice and information by Whanganui iwi into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

- 5 The Consent Holder shall, ~~during calendar year in~~ February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui River Maori Trust Board and Tamahaki Incorporated Society a written report on the matters referred to in condition 4, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 6 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 5, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Change or cancellation of consent conditions

- 7 The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act 1991 at any time within one month of the anniversary each year of the commencement of this consent.

Treaty Of Waitangi Claim Settlements

- 8 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Crown settling enactment of legislation which settles~~ any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~ matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~ matters contained in the said legislation that affect the



application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 9 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 8, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the Grown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Taurewa Take
Manawatu-Wanganui Region
101284**

Water permit – To **dam** the Taurewa Stream by means of the Taurewa Intake structure and to **divert** and **take** water at a maximum rate of up to 2 cubic metres per second from the Taurewa Stream at or about map reference NZMS 260 T19: 305 356 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Intake structure design capacity

- 1 The rate at which water is taken and diverted pursuant to this resource consent shall be deemed to comply with the conditions of this consent provided the capacity of the intake structure is not increased above its capacity as at the date of commencement of this consent.

Dam specifications

- 2 The intake structure spillway crest shall be maintained at 723.6 metres above Moturiki Datum and the width of the spillway shall be maintained at 7.6 metres. Compliance with this condition shall be satisfied provided that the dimensions are not altered from those existing at the date of commencement of this consent.

Responsibility for structural integrity and erosion control

- 3 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of the Taurewa Intake structure, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from the operation of that structure.

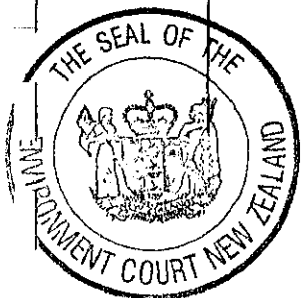
Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Cultural and Spiritual Matters

- 4 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi"), ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Western Diversion of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~consultation between the Consent Holder and Whanganui iwi.~~
- ~~Provides tangata whenua~~ Whanganui iwi with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.



- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~Provides for the input of advice and information by Whanganui iwi into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

- 5 The Consent Holder shall, ~~during calendar year~~in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui River Maori Trust Board and Tamahaki Incorporated Society a written report on the matters referred to in condition 4, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 6 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 5, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Change or cancellation of consent conditions

- 7 The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act 1991 at any time within one month of the anniversary each year of the commencement of this consent.

Treaty Of Waitangi Claim Settlements

- 8 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Crown settling~~enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the



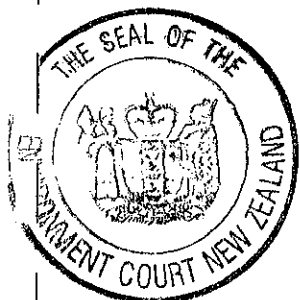
application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 9 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 8, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Tawhitikuri Take
Manawatu-Wanganui Region
101285**

Water permit – To **dam** the Tawhitikuri Stream by means of the Tawhitikuri Intake structure and to **divert** and **take** water at a maximum rate of up to 2 cubic metres per second from the Tawhitikuri Stream at or about map reference NZMS 260 T19: 311 359 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Intake structure design capacity

- 1 The rate at which water is taken and diverted pursuant to this resource consent shall be deemed to comply with the conditions of this consent provided the capacity of the intake structure is not increased above its capacity as at the date of commencement of this consent.

Dam specifications

- 2 The intake structure spillway crest shall be maintained at 630.9 metres above Moturiki Datum and the width of the spillway shall be maintained at 12.2 metres. Compliance with this condition shall be satisfied provided that the dimensions are not altered from those existing at the date of commencement of this consent.

Responsibility for structural integrity and erosion control

- 3 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of the Tawhitikuri Intake structure, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from the operation of that structure.

Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Cultural and Spiritual Matters

- 4 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi"), ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project ~~area that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Western Diversion of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~consultation between the Consent Holder and Whanganui iwi.~~
- Provides ~~tangata whenua~~ Whanganui iwi with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the



operation, effects and monitoring of the TPD and to implement them.

- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~Provides for the input of advice and information by Whanganui iwi into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

- 5 The Consent Holder shall, ~~during calendar year in~~ February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui River Maori Trust Board and Tamahaki Incorporated Society a written report on the matters referred to in condition 4, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 6 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 5, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

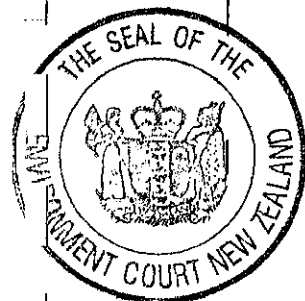
Change or cancellation of consent conditions

- 7 The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act 1991 at any time within one month of the anniversary each year of the commencement of this consent.

Treaty Of Waitangi Claim Settlements

- 8 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Grown settling~~enactment of legislation which settles any Treaty of Waitangi claim ~~by iwi~~ in respect of ~~rivers or lakes dammed or diverted~~any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the~~



said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 9 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 8, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Mangatepopo Take
Manawatu-Wanganui Region
101286**

Water permit – To **dam** the Mangatepopo Stream by means of the Mangatepopo Intake structure and to **divert** and **take** water at a maximum rate of up to 5 cubic metres per second from the Mangatepopo Stream at or about map reference NZMS 260 T19: 313 361 for a duration of 35 years from the commencement of this resource consent subject to the following conditions.

Intake structure design capacity

- 1 The quantity of water taken and diverted pursuant to this resource consent shall be deemed to comply with the conditions of this consent provided the capacity of the intake structure is not increased above its capacity as at the date of commencement of this consent.

Dam specifications

- 2 The intake structure spillway crest shall be maintained at 643.1 metres above Moturiki Datum and the width of the spillway shall be maintained at 16.8 metres. Compliance with this condition shall be satisfied provided that the dimensions are not altered from those existing at the date of commencement of this consent.

Responsibility for structural integrity and erosion control

- 3 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of the Mangatepopo Intake structure, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from the operation of that structure.

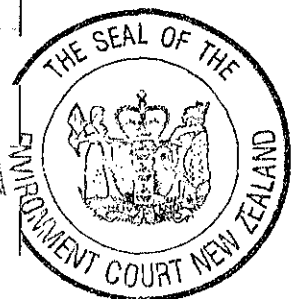
Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Minimum residual flow

4. As soon as practicable, but no later than 6 months following the commencement of this consent, the Consent Holder shall provide a continuous release from the Mangatepopo Dam structure to the Mangatepopo Stream of not less than 500 litres per second or the natural flow of the stream immediately above the influence of the Mangatepopo intake structure, whichever is less. For the purposes of this condition, the release flow is deemed to be provided by opening a control gate in the Mangatepopo Intake structure dam in accordance with an established gate rating curve to at least the opening required to maintain a flow in the Mangatepopo Stream immediately downstream of the structure of not less than 500 litres per second.

Minimum flow discharge verification

- 5 The Consent Holder shall maintain a discharge rating for the gate specified in condition 4. This rating shall be verified by alternative means of measurement within 3 months of the commencement of this consent. The results of that verification exercise shall be provided to the Manawatu Wanganui Regional Council within 10 working days of their completion.



Consent review

6. The Manawatu Wanganui Regional Council may in June of the fifth year after the commencement of this resource consent, and in June every 5 years thereafter, serve notice on the Consent Holder under section 128 (1)(a)(iii) of the Resource Management Act 1991 of its intention to review condition 4 for the purpose of assessing the adequacy of the specified minimum flow in terms of its ability to provide habitat suitable for blue duck and in terms of avoiding, remedying or mitigating adverse effects, and to amend that condition or add further conditions if necessary.

Advice Note: Costs associated with any review of the conditions of this resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act 1991.

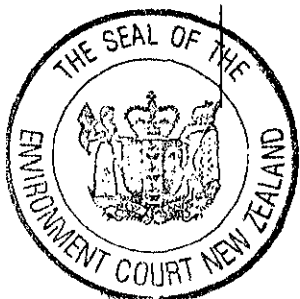
Cultural and Spiritual Matters

- 7 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi"), ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management ~~Plan~~ Plan for the Western Diversion of the TPD that:
 - ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~between the Consent Holder and Whanganui iwi.~~
 - Provides ~~tangata whenua~~ Whanganui iwi with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
 - ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

- 8 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui River Maori Trust Board and Tamahaki Incorporated Society a written report on the matters referred to in condition 7, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.



Consent Review (Cultural and Spiritual Matters)

- 9 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 8, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Change or cancellation of consent conditions

- 10 The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act 1991 at any time within one month of the anniversary each year of the commencement of this consent.

Treaty Of Waitangi Claim Settlements

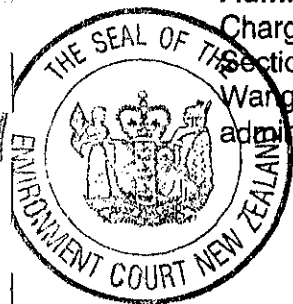
- 11 The Manawatu Wanganui Regional Council shall, within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 12 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 11, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:**Administration charges**

Charges, set in accordance with section 36 of the Resource Management Act 1991, and section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying



out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Te Whaiiau Canal Discharge
Manawatu-Wanganui Region
101287**

Discharge permit – To discharge the water taken pursuant to Resource Consents 101282, 101283, 101284, 101285 and 101286 and any material contained therein at a maximum rate of up to 51 cubic metres per second into Lake Te Whaiiau [*Te Whaiiau Canal*] at or about map reference NZMS 260 T19: 353 395 for a duration of 35 years from the commencement of this resource consent subject to the following conditions

Rate of discharge

- 1 The maximum discharge of water shall not exceed 51 cubic metres per second as measured at the Te Whaiiau Canal flow measurement station at or about map reference NZMS 260 T19: 355-395.

Responsibility for structural integrity and erosion control

- 2 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of the point of discharge of the Te Whaiiau Canal, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from that discharge.

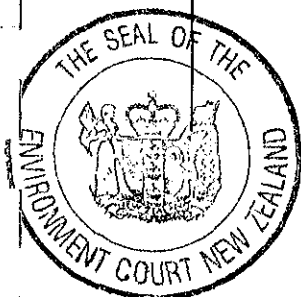
Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Cultural and Spiritual Matters

- 3 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi"), ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Western Diversion of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~consultation between the Consent Holder and Whanganui iwi.~~
- Provides tangata whenua ~~Whanganui iwi~~ with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.



For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

- 4 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui River Maori Trust Board and Tamahaki Incorporated Society a written report on the matters referred to in condition 3, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 5 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 4, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Change or cancellation of consent conditions

- 6 The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act 1991 at any time within one month of the anniversary each year of the commencement of this consent.

Treaty Of Waitangi Claim Settlements

- 7 The Manawatu Wanganui Regional Council shall, within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 8 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 7, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi



claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Whanganui Intake
Manawatu-Wanganui Region
101288**

Water permit – To **dam** the Whanganui River by means of the Whanganui Intake structure and to **divert** and **take** water at a maximum rate of up to 14 cubic metres per second from the Whanganui River [*Whanganui Intake*] at or about map reference NZMS 260 T19: 353 386 for a duration of 35 years from the commencement of this resource consent subject to the following conditions

Intake structure design capacity

- 1 The rate at which water is taken and diverted pursuant to this resource consent shall be deemed to comply with the conditions of this consent provided the capacity of the intake structure is not increased above its capacity as at the date of commencement of this consent.

Dam specifications

- 2 The intake structure spillway crest shall be maintained at 618.4 metres above Moturiki Datum and the width of the spillway shall be maintained at 10.1 metres. Compliance with this condition shall be satisfied provided that the dimensions are not altered from those existing at the date of commencement of this consent.

Responsibility for structural integrity and erosion control

- 3 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of the Whanganui intake structure, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from the operation of that structure.

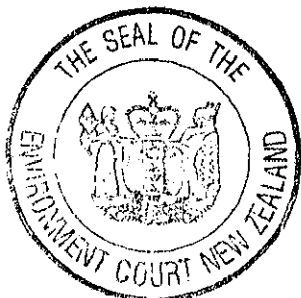
Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Minimum residual flow

4. As soon as practicable, but no later than 6 months following the commencement of this consent, the Consent Holder shall provide a continuous release from the Whanganui Dam structure to the Whanganui River of not less than 300 litres per second or the natural flow of the river immediately above the influence of the Whanganui River intake structure, whichever is less. For the purposes of this condition, the release flow is deemed to be provided by opening a control gate (or gates) in the Whanganui Intake structure dam in accordance with an established gate rating curve to at least the opening required to maintain a flow in the Whanganui River immediately downstream of the structure of not less than 300 litres per second.

Minimum flow discharge verification

- 5 The Consent Holder shall maintain a discharge rating for the gate specified in condition 4. This rating shall be verified by alternative means of measurement within 3 months of the commencement of this consent. The results of that verification exercise shall be provided to the Manawatu Wanganui Regional Council within 10 working days of their completion.



Consent review

6. The Manawatu Wanganui Regional Council may in June of the fifth year after the commencement of this resource consent, and in June every 5 years thereafter, serve notice on the Consent Holder under section 128 (1)(a)(iii) of the Resource Management Act 1991 of its intention to review condition 4 for the purpose of assessing the adequacy of the specified minimum flow in terms of its ability to provide habitat suitable for blue duck and in terms of avoiding, remedying or mitigating adverse effects, and to amend that condition or add further conditions if necessary.

Advice Note: Costs associated with any review of the conditions of this resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act 1991.

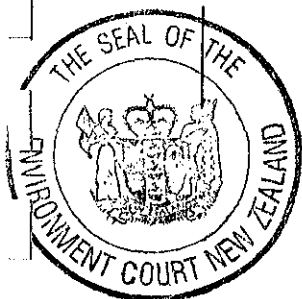
Cultural and Spiritual Matters

7. The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi"), develop a process to address the following matters on a process that provides for:

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project ~~area that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that Plan for the Western Diversion of the TPD that:~~
 - ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~consultation between the Consent Holder and Whanganui iwi.~~
 - ~~Provides tangata whenua~~ Whanganui iwi with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
 - ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

8. The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui River Maori Trust Board and Tamahaki Incorporated Society a written report on the matters referred to in condition 7, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.



Consent Review (Cultural and Spiritual Matters)

- 9 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 8, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Change or cancellation of consent conditions

- 10 The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act 1991 at any time within one month of the anniversary each year of the commencement of this consent.

Treaty Of Waitangi Claim Settlements

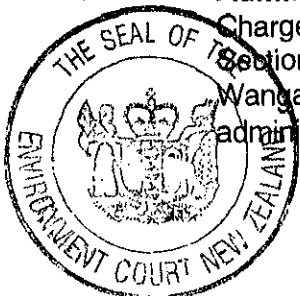
- 11 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Crown settling~~enactment of legislation which settles any Treaty of Waitangi claim ~~by iwi in respect of rivers or lakes dammed or diverted~~any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

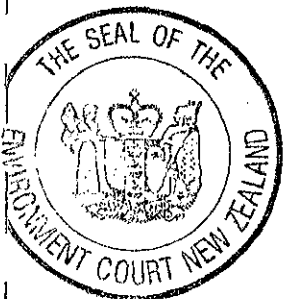
- 12 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 11, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the ~~Crown settling~~enactment of legislation which settles any Treaty of Waitangi claim ~~by iwi in respect of rivers or lakes dammed or diverted~~any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:**Administration charges**

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying



out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Te Whaiiau Culvert Discharge
Manawatu-Wanganui Region
101289**

Discharge permit – To discharge the water taken pursuant to Resource Consent 101288 and any material contained therein at a maximum rate of up to 14 cubic metres per second into Te Whaiiau Stream [*Te Whaiiau Culvert*] at or about map reference NZMS 260 T19: 357 390 for a duration of 35 years from the commencement of this resource consent subject to the following conditions.

Rate of discharge

1. The maximum discharge of water to the Te Whaiiau Stream shall not exceed 14 cubic metres per second as measured at the Te Whaiiau Culvert flow measurement station at or about map reference NZMS 260 T19: 357-390.

Responsibility for structural integrity and erosion control

- 2 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of the point of the Te Whaiiau Culvert discharge, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from that discharge.

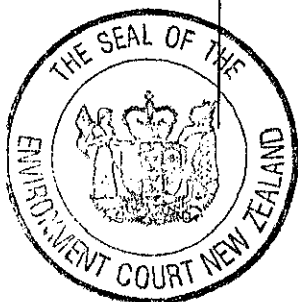
Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Cultural and Spiritual Matters

- 3 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi"), ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project ~~area that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management ~~Plan~~ Plan for the Western Diversion of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~consultation between the Consent Holder and Whanganui iwi.~~
- ~~Provides tangata whenua~~ Whanganui iwi with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.



For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

- 4 The Consent Holder shall, ~~during calendar year in~~ February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui River Maori Trust Board and Tamahaki Incorporated Society a written report on the matters referred to in condition 3, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 5 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 4, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Change or cancellation of consent conditions

- 6 The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act 1991 at any time within one month of the anniversary each year of the commencement of this consent.

Treaty Of Waitangi Claim Settlements

- 7 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Grown settling enactment of~~ legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~ matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~ matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 8 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 7, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the ~~Grown settling enactment of~~ legislation which settles any Treaty of Waitangi



claim by iwi in respect of ~~rivers or lakes dammed or diverted~~ any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Te Whaiaiu Canal
Manawatu-Wanganui Region
101290**

Water permit – To **dam** and **divert** Te Whaiaiu Stream by means of the Te Whaiaiu Dam structure which forms Lake Te Whaiaiu [*Te Whaiaiu Dam*] and **discharge** water over the Te Whaiaiu dam spillway at or about map reference NZMS 260 T19: 357 398 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Dam specifications

- 1 The dam spillway crest shall be maintained at 611.98 metres above Moturiki Datum and the width of the spillway shall be maintained at 182.9 metres. Compliance with this condition shall be satisfied provided that the dimensions are not altered from those existing at the date of commencement of this consent.

Responsibility for structural integrity and erosion control

- 2 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of the Te Whaiaiu dam structure, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from the operation of that structure.

Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Dam safety

3. The Consent Holder shall have in place a Dam Safety Assurance Programme in accordance with the Dam Safety Guidelines issued by the New Zealand Society on Large Dams, dated November 1995 and as updated from time to time. Reports documenting the findings of surveillance, inspections and safety reviews shall be made available to the Manawatu Wanganui Regional Council upon request.

Cultural and Spiritual Matters

- 4 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi"), ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Western Diversion of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~between the Consent Holder and Whanganui iwi.~~
- ~~Provides tangata whenua~~ Whanganui iwi with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the



operation, effects and monitoring of the TPD and to implement them.

- Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes
Provides for the input of advice and information by Whanganui iwi into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

- 5 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui River Maori Trust Board and Tamahaki Incorporated Society a written report on the matters referred to in condition 4, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 6 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 5, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Change or cancellation of consent conditions

- 7 The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act 1991 at any time within one month of the anniversary each year of the commencement of this consent.

Consent review

- 8 The Manawatu Wanganui Regional Council may in June of the fifth year after the commencement of this resource consent, and in June every 5 years thereafter, serve notice on the Consent Holder under section 128 (1)(a)(iii) of the Resource Management Act 1991 of its intention to review the conditions of this consent, for the purpose of dealing with any unforeseen adverse effects resulting from the Te Whaiau dam spillway discharge, and to amend conditions or add further conditions if necessary.

Advice Note: Costs associated with any review of the conditions of this resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act 1991.



Treaty Of Waitangi Claim Settlements

9 The Manawatu Wanganui Regional Council shall, within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

10 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 9, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Otamangakau Canal Take
Manawatu-Wanganui Region
101291**

Water permit – To divert and take water at a maximum rate of up to 74 cubic metres per second from Lake Te Whaiu [*Otamangakau Canal*] at or about map reference NZMS 260 T19: 360 398 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Cultural and Spiritual Matters

1 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi"), ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Western Diversion of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~consultation between the Consent Holder and Whanganui iwi.~~
- ~~Provides tangata whenua~~ Whanganui iwi with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

2 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui River Maori Trust Board and Tamahaki Incorporated Society a written report on the matters referred to in condition 1, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 2, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying



or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Treaty Of Waitangi Claim Settlements

- 4 The Manawatu Wanganui Regional Council shall, within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

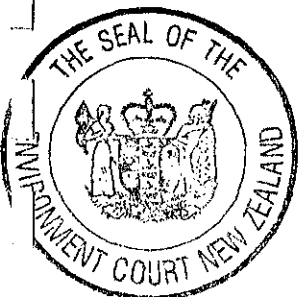
For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 5 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 4, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Otamangakau Canal Discharge
Manawatu-Wanganui Region
101292**

Discharge permit – To discharge the water taken pursuant to Resource Consent 101291 and any material contained therein at a maximum rate of up to 74 cubic metres per second into Lake Otamangakau [*Otamangakau Canal*] at or about map reference NZMS 260 T19: 370 406 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Cultural and Spiritual Matters

1 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi"), ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Western Diversion of the TPD that:

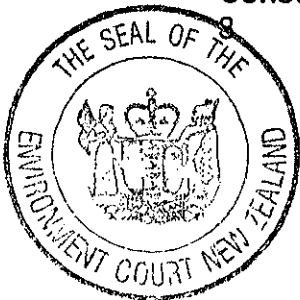
- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation between the Consent Holder and Whanganui iwi.
- ~~Provides tangata whenua Whanganui iwi with full opportunity to formulate appropriate kaitiaki protocols in relation to the operation, effects and monitoring of the TPD and to implement them.~~
- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

2 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui River Maori Trust Board and Tamahaki Incorporated Society a written report on the matters referred to in condition 1, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 2, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying



or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Treaty Of Waitangi Claim Settlements

- 4 The Manawatu Wanganui Regional Council shall, within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

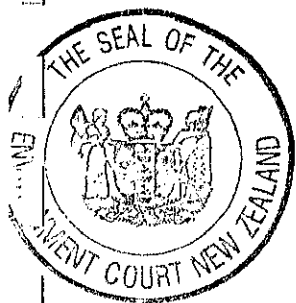
For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 5 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 4, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Otamangakau Dam
Manawatu-Wanganui Region
101293**

Water permit – To **dam** and **divert** the Otamangakau Stream by means of the Otamangakau Dam structure which forms Lake Otamangakau [*Otamangakau Dam*] at or about map reference NZMS 260 T19: 367 410 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Lake Levels

1. The Consent Holder shall maintain the level of Lake Otamangakau:
 - a. between a minimum of 610.75 metres and a maximum of 611.98 metres above Moturiki Datum during the period 1 November to 31 March inclusive, and
 - b. between a minimum of 610.50 metres and a maximum of 611.98 metres above Moturiki Datum during the period 1 April to 31 October inclusive.
2. During the period 1 October to 31 May the Consent Holder shall use its best endeavours to maintain an average lake level of 611.10 metres above Moturiki Datum.
3. Notwithstanding condition 1 of this consent, the level of Lake Otamangakau shall be permitted to rise above a level of 611.98 metres above Moturiki Datum if:
 - i TPD discharges to Lake Taupo have been discontinued due to the requirements of consents 103882 and 103863, or flood inflows to Lake Otamangakau are occurring, and
 - ii the intake on the Whakapapa River is fully closed and the Lake Otamangakau drainage valve is fully open.

The Consent Holder shall ensure that the level of Lake Otamangakau is reduced to at least the maximum level specified in condition 1 of this consent as soon as is practicable once the situations listed in (i) of condition 3 no longer prevail.

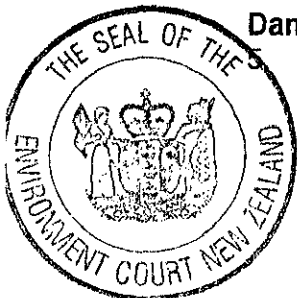
Consent review

4. The Manawatu Wanganui Regional Council may in June of the fifth year after the commencement of this resource consent, and in June every 5 years thereafter, serve notice on the Consent Holder under section 128 (1)(a)(iii) of the Resource Management Act 1991 of its intention to review conditions 1 to 3 for the purpose of assessing the adequacy of the specified lake level regime in terms of its ability to maintain the lake's trophy trout fishery and lake habitat, whilst providing adequate operational flexibility to the Consent Holder, and to amend those conditions or add further conditions if necessary.

Advice Note: Costs associated with any review of the conditions of this resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act 1991.

Dam safety

The Consent Holder shall have in place a Dam Safety Assurance Programme in accordance with the Dam Safety Guidelines issued by the New Zealand Society on Large Dams, dated November 1995 and as updated from time to



time. Reports documenting the findings of surveillance, inspections and safety reviews shall be made available to the Manawatu Wanganui Regional Council upon request.

Cultural and Spiritual Matters

6 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi"), ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Western Diversion of the TPD that:
 - ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~consultation between the Consent Holder and Whanganui iwi.~~
 - ~~Provides tangata whenua~~ Whanganui iwi with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
 - ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

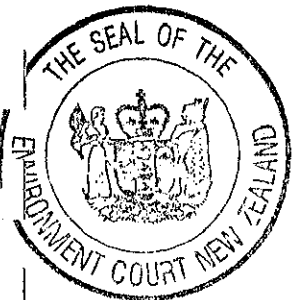
For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

7 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui River Maori Trust Board and Tamahaki Incorporated Society a written report on the matters referred to in condition 6, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

8 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 7, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual



effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Change or cancellation of consent conditions

- 9 The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act 1991 at any time within one month of the anniversary each year of the commencement of this consent.

Treaty Of Waitangi Claim Settlements

- 10 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Grown settling~~enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or divertedany rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 11 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 10, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the ~~Grown settling~~enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or divertedany rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Otamangakau Dam Discharge
Manawatu-Wanganui Region
101294**

Discharge permit – To discharge water and any material contained therein at a maximum rate of up to 3 cubic metres per second into the Otamangakau Stream downstream of the Otamangakau Dam structure via a controlled release mechanism [*Otamangakau Dam discharge*] at or about map reference NZMS 260 T19: 367 410 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Discharge rating

- 1 Within 6 months of the commencement of this consent the Consent Holder shall calibrate the flow release mechanism so that an accurate record of the flow released through it can be obtained by recording the days and times when it is used. The Consent Holder shall then record the days and times when it is used and that information shall be provided to the Manawatu Wanganui Regional Council within 5 working days upon request.

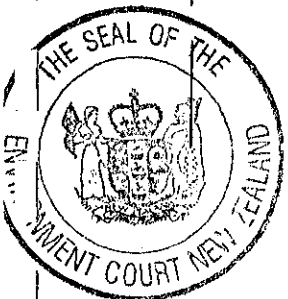
Responsibility for structural integrity and erosion control

- 2 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of the Otamangakau dam structure, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from the operation of that structure.

Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Cultural and Spiritual Matters

- 3 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi"), ~~develop a process to address the following matters on a process that provides for:~~
 - i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
 - ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi on matters pertaining to the operation and effects of the TPD.
 - iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Western Diversion of the TPD that:
 - ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~consultation between the Consent Holder and Whanganui iwi.~~
 - Provides ~~tangata whenua~~ Whanganui iwi with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
 - ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and



information by Whanganui iwi into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

- 4 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui River Maori Trust Board and Tamahaki Incorporated Society a written report on the matters referred to in condition 3, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 5 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 4, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

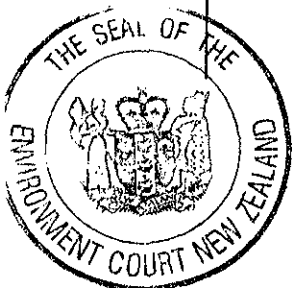
Change or cancellation of consent conditions

- 6 The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act 1991 at any time within one month of the anniversary each year of the commencement of this consent.

Treaty Of Waitangi Claim Settlements

- 7 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Crown settling enactment of legislation which settles~~ any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement matters contained in the said~~ legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement matters contained in the said~~ legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

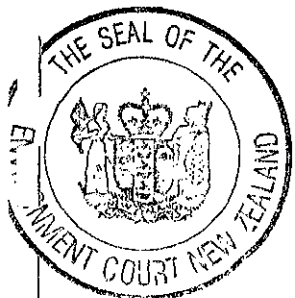


- 8 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 7, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Wairehu Canal Take
Manawatu-Wanganui Region
101295**

Water permit – To divert and take water at a maximum rate of up to 55 cubic metres per second from Lake Otamangakau [*Wairehu Canal*] at or about map reference NZMS 260 T19: 386 411 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Fish passage

1. The Consent Holder shall take all practicable measures to prevent fish passage between Lake Otamangakau and the Wairehu Canal.

Cultural and Spiritual Matters

2. The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi"), ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Western Diversion of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~consultation between the Consent Holder and Whanganui iwi.~~
- ~~Provides tangata whenua~~ Whanganui iwi with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

3. The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui River Maori Trust Board and Tamahaki Incorporated Society a written report on the matters referred to in condition 2, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.



Consent Review (Cultural and Spiritual Matters)

- 4 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 3, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Treaty Of Waitangi Claim Settlements

- 5 The Manawatu Wanganui Regional Council shall, within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

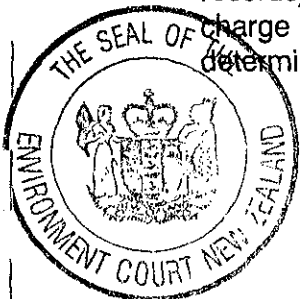
For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 6 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 5, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.



**Maintenance of Structures and Watercourses
Manawatu-Wanganui Region
101296**

Combined land use consent, water permit and discharge permit – To undertake the following activities for the purpose of maintaining structures or removing sediment, weed, debris, plants and other material from watercourses within the Tongariro Power Development:

- i) to **reconstruct, alter, remove or demolish** any structure or part of any structure in, on, under or over the bed of a river or lake;
- ii) to disturb, remove, damage, or destroy sediment, weed, debris, plants and other material in, on, under, over or adjacent to the bed of a river or lake;
- iii) to **enter, pass across or disturb** the bed of a river or lake, including for the purpose of removing or flushing accumulated bed material in order to maintain the functional integrity and operational efficiency of a structure;
- iv) to **deposit** removed material on the bed of a river or lake;
- v) to **dam and divert** water;
- vi) to **discharge** water into water;
- vii) to **discharge** sediment and other materials into water —

within the area bounded by maps NZMS 260 S19, T19 AND T 20 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

- NOTE The activities authorised by this consent include but are not limited to:
- The flushing, automatic or manual removal, excavation or sluicing and deposition of accumulated sediment and debris;
 - Drainage and maintenance discharges from structures, culverts, pipelines and tunnels;
 - Discharges from the Whakapapa-Tawhitikuri-Whanganui Tunnel bulkhead maintenance discharge to the Tawhitikuri Stream;
 - Whakapapa-Tawhitikuri-Whanganui Tunnel drain valve maintenance discharge to the Whanganui River;
 - Discharges from the testing of gates and structures;
 - Construction of temporary dams and diversions.

Scope of Consent

- 1 This resource consent only applies to activities undertaken within 200 upstream or downstream of any TPD structure located within a watercourse.
- 2 This consent does not apply to the specific activities that are authorised by resource consents 101279, 101302 or 101303.

Responsibility for operations

- 3 The Consent Holder shall ensure contractors are made aware of the conditions of this resource consent and the need to comply with them.

Responsibility for structural integrity and erosion control

- 4 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of any activities authorised by this consent, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from those activities.

Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.



Fish passage and blue ducks

- 5 The activities authorised by this consent shall not prevent the passage of fish both upstream and downstream.
- 6 The activities authorised by this consent shall not disturb the nesting or breeding of blue ducks within a distance 200 metres upstream and downstream of the activity. This condition does not apply to the automatic sluicing of diversion or intake structures or essential works required to maintain the structural integrity or safe operation of a structure.

Effects of structure on water flow

- 7 The Consent Holder shall ensure that any machinery, equipment or materials associated with any activities authorised by this consent, but not in use, do not obstruct the flood channel of the watercourse.

Control of contaminants from operation of machinery

- 8 All machinery shall be operated in a manner which ensures that spillages of fuel, oil and similar contaminants are minimised to the fullest extent practicable, particularly during refuelling and machinery servicing and maintenance. Refuelling and lubrication activities shall be carried out away from any water body such that any spillage can be contained so it does not enter any water body.

Discharges to water

- 9 Any materials used for activities authorised by this consent shall be managed in ways that ensure risks to aquatic ecosystems are minimised to the fullest extent practicable.
- 10 Where as a result of the exercise of this resource consent, sections of the channel banks have in excess of five square metres of vegetation removed from them, the Consent Holder shall where necessary minimise channel bank erosion to the fullest extent practicable.
- 11 No dry cement shall be released into the watercourse. Any concrete placed in or adjacent to a watercourse shall be contained by a watertight form work in such a way that cement slurry is not able to seep out and enter the watercourse. New concrete shall not be exposed to the flow of water before it has hardened for at least 48 hours.
- 12 Any discharge of sediment directly associated with an activity authorised by this consent shall not occur for more than 5 consecutive days, nor for more than 12 hours on any one day within those 5 days.

Diversions

- 13 Any temporary diversion of water or cessation of flow required to undertake activities authorised by this consent shall be returned to its normal state within 2 working days of the completion of the activity.
- 14 Prior to implementing condition 13 of this resource consent, the Consent Holder shall inspect the temporary diversion or dewatered area and any fish impounded within it shall be returned to the original watercourse as soon as practicable following their discovery.



Rehabilitation of Disturbed Areas

- 15 Within 20 working days of the completion of any activities authorised by this consent, the Consent Holder shall stabilise and re-contour any disturbed areas to the satisfaction of the Manawatu Wanganui Regional Council in order to:
- i limit sediment runoff or erosion to the greatest extent practicable,
 - ii remove any stockpiles of material and fill any depressions where these would adversely effect the flow of water.
- 16 Any disturbed areas shall be revegetated as soon as practicable in a manner consistent with existing vegetation cover at and about the site to the satisfaction of the Manawatu Wanganui Regional Council. The Consent Holder shall maintain the site until any re-vegetated area is established.
- 17 Any construction materials associated with activities authorised by this consent that are no longer required as part of the structure, and/or any temporary structures that are no longer required to undertake activities authorised by this consent, shall be removed within 2 working days following the completion of the activity.

Sediment Flushing

- 18 Where sediment and other material removed from structures is deposited into a watercourse, that sediment and other material shall not be deposited directly into flowing water. It shall be deposited in such a manner and location that it can be carried away by a flow in excess of the mean annual flow for that watercourse. This condition does not apply to the automatic sluicing of diversion or intake structures.

Notices warning of maintenance activities

- 19 Where the activities authorised by this consent are undertaken in an area accessible to the public, then the Consent Holder shall erect notices that are easily readable from a distance of 5 metres adjacent to any activities authorised by this consent. These notices shall provide warning of the activities and advice of the period over which they will be occurring. The notices shall be erected at least 5 working days prior to the commencement of any scheduled activity and shall not be removed by the Consent Holder for the duration of the activity. For non-scheduled activities the warning signs shall be erected as soon as practicable following the commencement of the activity and shall not be removed by the Consent Holder for the duration of the activity.

Advice Note: Refer to condition 25 which relates to scheduled activities.

Waterway access

- 20 The Consent Holder shall ensure that existing public access is maintained along watercourses at all times, except for areas and periods where the safety of the public and integrity of any structure would be endangered as a result of the activities authorised by this consent.

Fish spawning periods

- 21 There shall be no disturbance of any actively flowing channel as a result of the exercise of this resource consent in the Moawhango River or any tributary of the Whanganui River within the period 1 July to 1 November inclusive. This condition does not apply to the automatic sluicing of diversion or intake structures or essential works required to maintain the structural integrity or safe operation of a structure.



Notification to Council

22. For any scheduled maintenance activity involving the temporary use of machinery in a river or lake bed, or the temporary damming or diversion of water, the Consent Holder shall notify the Manawatu-Wanganui Regional Council in writing of its intention to exercise this consent not less than 10 working days prior to exercising the consent. The notification shall include:
- i a description of the location in which the consent will be exercised;
 - ii a description of the scope and duration of the maintenance activities to be undertaken;
 - iii a description of the specific measures to be used to minimise the effects of the activities to be undertaken.
- 23 For any unscheduled maintenance activity involving the temporary use of machinery in a river or lake bed, or the temporary damming or diversion of water, the Consent Holder shall notify the Manawatu-Wanganui Regional Council in writing of the activity within 48 hours of its commencement. The details of the notification shall include those specified under condition 22 of this resource consent.

Complaint register

- 24 The Consent Holder shall maintain and keep a complaints register for any complaints about the maintenance activities received by the Consent Holder in relation to the degradation of water quality, adverse effects on aquatic ecosystems or wildlife, or the impedance of public access to or along watercourses. The register shall record, where this information is available:
- i the date, time and duration of the incident that has resulted in a complaint,
 - ii the location of the complainant when the incident was detected,
 - iii the possible cause of the incident,
 - iv any corrective action undertaken by the Consent Holder in response to the complaint.

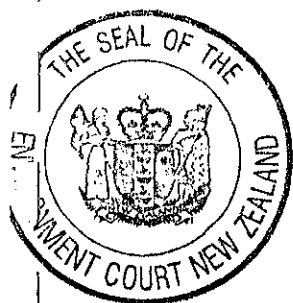
The register shall be available to the Manawatu Wanganui Regional Council at all reasonable times. Complaints received by the Consent Holder that may infer non-compliance with the conditions of this resource consent shall be forwarded to the Manawatu Wanganui Regional Council within 48 hours of the complaint being received.

Scheduled Maintenance Plan

- 25 By 30 June each year the Consent Holder shall provide to the Manawatu Wanganui Regional Council a Plan stating the activities authorised by this consent that are scheduled to be undertaken in the following 12 months. That Plan shall contain as a minimum:
- i details of the type, nature and location of each activity and the period during which it is intended to be undertaken,
 - ii events that would potentially trigger unscheduled activities and the possible type, nature and location of such unscheduled activities.

Large Scale Dredging

26. This consent does not authorise any dredging in excess of 100 cubic metres of material per annum from Lake Te Whaiiau, Lake Otamangakau or the Otamangakau Canal.



Cultural and Spiritual Matters

27 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi") and Ngati Rangi Trust, ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi and Ngati Rangi Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Eastern and Western Diversions of the TPD that:
 - ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~between the Consent Holder and Whanganui iwi and Ngati Rangi Trust.~~
 - ~~Provides tangata whenua~~ Whanganui iwi and Ngati Rangi Trust with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
 - ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi and Ngati Rangi Trust into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

28 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui iwi and Ngati Rangi Trust a written report on the matters referred to in condition 27, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

29 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 28, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.



Change or Cancellation of Conditions

- 30 The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act at any time within one month of the anniversary each year of the commencement of this consent.

Review (s128)

- 31 The Manawatu Wanganui Regional Council may in June of the fifth year after the commencement of this resource consent, and every 5 years thereafter, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review conditions 5 to 26 for the purpose of assessing their adequacy in avoiding, remedying or mitigating adverse effects on the environment and to amend those conditions or add further conditions if necessary.

Advice Note: Costs associated with any review of the conditions of this resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act 1991.

Lapsing of Consent

- 32 Pursuant to section 125(1) of the Resource Management Act 1991 this consent shall not lapse until the consent duration of 35 years expires.

Treaty Of Waitangi Claim Settlements

- 33 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Grown settling~~enactment of legislation which settles any Treaty of Waitangi claim ~~by iwi~~ in respect of ~~rivers or lakes dammed or diverted~~any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 34 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 33, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the ~~Grown settling~~enactment of legislation which settles any Treaty of Waitangi claim ~~by iwi~~ in respect of ~~rivers or lakes dammed or diverted~~any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.



GENERAL ADVICE NOTES:**Administration charges**

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.

Private Agreements

In granting this consent particular regard has been had to the agreements reached by the consent holder with Ngati Tuwharetoa, Ngati Tamakopiri, Ngati Whitikopeka, Ngati Hauiti and the Lake Rotoaira Trust.



**Maintenance Activity Discharges
Manawatu-Wanganui Region
101302**

Discharge permit – To discharge materials onto or into land associated with the removal of sediment, weed, debris or other material from or adjacent to watercourses within the area bounded by maps NZMS 260 S19, T19 AND T 20 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Scope of Consent

- 1 This consent does not apply to the specific activities that are authorised by resource consents 101279, 101296 or 101303.

Responsibility for operations

- 2 The Consent Holder shall ensure contractors are made aware of the conditions of this resource consent and the need to comply with them.

Responsibility for structural integrity and erosion control

- 3 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of any activities authorised by this consent, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from those activities.

Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Control of contaminants from operation of machinery

- 4 All machinery shall be operated in a manner which ensures that spillages of fuel, oil and similar contaminants are minimised to the fullest extent practicable, particularly during refuelling and machinery servicing and maintenance. Refuelling and lubrication activities shall be carried out away from any water body such that any spillage can be contained so it does not enter any water body.

Site Management

- 5 Any accumulation of sediment onto land in excess of 50 cubic metres, resulting from the exercise of this resource consent, in any one location where it is readily visible to the public and which would otherwise be out of keeping with the character of the surrounding landscape shall be screened with vegetation or fencing to the satisfaction of, and in consultation with, the Manawatu-Wanganui Regional Council.
6. The activities authorised by this consent shall be managed in such a way so as to avoid, to the greatest extent practicable, runoff of sediment, weeds, debris or other material into surface water.

Advice Note: This may require the installation and maintenance of sediment retention devices. A separate resource consent may be required to install such works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken

7. There shall be no conspicuous oil, grease, scums or foams present in surface water after reasonable mixing as a result of the exercise of this consent.



Odour and Dust

- 8 The activities authorised by this consent shall not give rise to any offensive or objectionable odour, or offensive or objectionable deposition of dust or debris, beyond the boundary of land owned or controlled by the Consent Holder.

Warning Notices

- 9 Where activities authorised by this consent are undertaken in an area accessible to the public, then the Consent Holder shall erect notices that are easily readable from a distance of 5 metres adjacent to any materials deposition site. These notices shall provide warning of the activity. The notices shall be erected at least 5 working days prior to the commencement of any scheduled activity and shall not be removed by the Consent Holder for the duration of the activity. For non-scheduled activities the warning signs shall be erected as soon as practicable following the commencement of the activity and shall not be removed by the Consent Holder for the duration of the activity.

Runoff management plan

- 10 Within 2 months of the commencement of this consent the Consent Holder shall provide a Management Plan to the Manawatu Wanganui Regional Council describing how the sediment, weed and debris deposition activities authorised by this consent will be managed and the methods to be adopted by the Consent Holder to achieve compliance with the conditions of this consent.

Complaint register

- 11 The Consent Holder shall maintain and keep a complaints register for any complaints about the discharge activities received by the Consent Holder in relation to the degradation of water quality, adverse effects on aquatic ecosystems or wildlife, odours, or adverse visual effects. The register shall record where this information is available:
- i the date, time and duration of the incident that has resulted in a complaint,
 - ii the location of the complainant when the incident was detected,
 - iii the possible cause of the incident,
 - iv any corrective action undertaken by the Consent Holder in response to the complaint.

The register shall be available to the Manawatu Wanganui Regional Council at all reasonable times. Complaints received by the Consent Holder that may infer non-compliance with the conditions of this resource consent shall be forwarded to the Manawatu Wanganui Regional Council within 48 working days of the complaint being received.

Change or cancellation of conditions

12. The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act at any time within one month of the anniversary each year of the commencement of this consent.

Review (s128)

- 13 The Manawatu Wanganui Regional Council may in June of the fifth year after the commencement of this resource consent, and every 5 years thereafter, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review conditions 5 to 11 for the purpose of assessing their adequacy in avoiding, remedying or mitigating adverse effects on the environment and to amend those conditions or add further conditions if necessary.



Advice Note: Costs associated with any review of the conditions of this resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act 1991.

Lapsing of Consent

14. Pursuant to section 125(1) of the Resource Management Act 1991 this consent shall not lapse until the consent duration of 35 years expires.

Cultural and Spiritual Matters

15. The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi") and Ngati Rangi Trust, develop a process to address the following matters on a process that provides for:

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi and Ngati Rangi Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Eastern and Western Diversions of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation between the Consent Holder and Whanganui iwi and Ngati Rangi Trust.
- ~~Provides tangata whenua~~ Whanganui iwi and Ngati Rangi Trust with full opportunity to formulate appropriate kaitiaki protocols ~~in relation to the operation, effects and monitoring of the TPD and to implement them.~~
- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi and Ngati Rangi Trust into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

16. The Consent Holder shall, ~~during calendar year in~~ February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui iwi and Ngati Rangi Trust a written report on the matters referred to in condition 15, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

17. The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 16, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying



or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Treaty Of Waitangi Claim Settlements

- 18 The Manawatu Wanganui Regional Council shall, within 12 months of the Grown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 19 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 18, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the Grown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.

Private Agreements

In granting this consent particular regard has been had to the agreements reached by the consent holder with Ngati Tuwharetoa, Ngati Tamakopiri, Ngati Whitikopeka, Ngati Hauiti and the Lake Rotoaira Trust.



**Abrasive Blasting
Manawatu-Wanganui Region
101303**

Discharge permit – To discharge materials into the air, onto land and into water from abrasive blasting activities undertaken for the maintenance of TPD structures within the area bounded by maps NZMS 260 S19, T19 AND T 20 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Responsibility for operations

- 1 The Consent Holder shall ensure contractors are made aware of the conditions of this resource consent and the need to comply with them.

Notification to Council

2. The Consent Holder shall notify the Manawatu-Wanganui Regional Council in writing of its intention to exercise this consent not less than 10 working days prior to exercising the consent. The notification shall include:
 - i A description of the location in which the consent will be exercised;
 - ii A description of the scope and duration of the activities to be undertaken;
 - iii A description of the specific measures to be used to minimise the effects of the activities to be undertaken.

Site management

3. Any abrasive media not in use shall be kept covered at all times.
4. The abrasive media used shall not contain more than 5 % silica on a dry weight basis.
- 5 The Consent Holder shall avoid to the fullest extent practicable any debris resulting from the abrasive blasting activities being deposited into any watercourse.

Advice Note: Compliance with this condition may require the use of physical barriers and tarpaulins to catch and contain debris.

6. All debris resulting from the abrasive blasting activities shall be removed, to the fullest extent practicable, by the Consent Holder immediately following the completion of the blasting activity and disposed of in a lawful manner.
7. The activities authorised by this consent shall not result in an objectionable deposition of dust on properties owned or occupied by any other person, unless prior written approval has been obtained from those owners or occupiers.

Scheduled Abrasive Blasting Plan

8. By 30 June each year the Consent Holder shall provide to the Manawatu Wanganui Regional Council a Plan stating the activities authorised by this consent that are scheduled to be undertaken in the following 12 months. That Plan shall contain as a minimum:
 - i details of the location of each activity and the period during which it is intended to be undertaken,
 - ii events that would potentially trigger unscheduled activities and the type, nature and location of such unscheduled activities,
 - iii measures to be undertaken to achieve compliance with conditions 5, 6 and 7 of this consent



Change and cancellation of conditions

9. The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act at any time within one month of the anniversary each year of the commencement of this consent.

Review (s128)

- 10 The Manawatu Wanganui Regional Council may in June of the fifth year after the commencement of this resource consent, and every 5 years thereafter, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review conditions 3 to 8 for the purpose of assessing their adequacy in avoiding, remedying or mitigating adverse effects on the environment and to amend those conditions or add further conditions if necessary.

Advice Note: Costs associated with any review of the conditions of this resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act 1991.

Lapsing of Consent

11. Pursuant to section 125(1) of the Resource Management Act 1991 this consent shall not lapse until the consent duration of 35 years expires.

Cultural and Spiritual Matters

- 12 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi") and Ngati Rangi Trust, ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi and Ngati Rangi Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Eastern and Western Diversions of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation between the Consent Holder and Whanganui iwi and Ngati Rangi Trust.
- ~~Provides tangata whenua~~ Whanganui iwi and Ngati Rangi Trust with full opportunity to formulate appropriate kaitiaki protocols protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi and Ngati Rangi Trust into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.



For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

- 13 The Consent Holder shall, ~~during calendar year in~~ February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui iwi and Ngati Rangi Trust a written report on the matters referred to in condition 12, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 14 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 13, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Treaty Of Waitangi Claim Settlements

- 15 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected~~ by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.~~ Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.~~ Resource Management Act 1991 matters contained in the said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 16 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 15, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the ~~Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected~~ by the TPD.

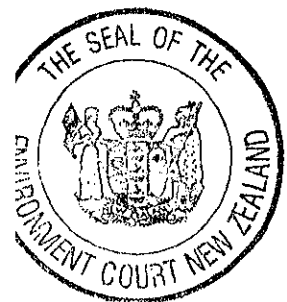


GENERAL ADVICE NOTES:**Administration charges**

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.

Private Agreements

In granting this consent particular regard has been had to the agreements reached by the Consent Holder with Ngati Tuwharetoa, Ngati Tamakopiri, Ngati Whitikopeka Ngati Hauiti and the Lake Rotoaira Trust.



**Use of Structures
Manawatu-Wanganui Region
101304**

Land use consent – To use structures within the Tongariro Power Development for the purposes of damming, diverting, taking and conveying water; discharging water and any other materials contained therein; generating hydroelectricity; providing access across waterways (bridges); measuring flows and water quality; and any other activity necessary to enable the functioning of the Tongariro Power Development within the area bounded by maps NZMS 260 S19, T19 AND T 20 for a duration of 35 years from the commencement of this resource consent.

Cultural and Spiritual Matters

1 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi") and Ngati Rangi Trust, ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi and Ngati Rangi Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Eastern and Western Diversions of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation between the Consent Holder and Whanganui iwi and Ngati Rangi Trust.
- Provides ~~tangata whenua~~ Whanganui iwi and Ngati Rangi Trust with full opportunity to formulate appropriate kaitiaki protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi and Ngati Rangi Trust into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

2 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui iwi and Ngati Rangi Trust a written report on the matters referred to in condition 1, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.



Consent Review (Cultural and Spiritual Matters)

- 3 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 2, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Treaty Of Waitangi Claim Settlements

- 4 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Crown settling~~enactment of legislation which settles any Treaty of Waitangi claim ~~by iwi in respect of rivers or lakes dammed or diverted~~any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 5 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 4, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the ~~Crown settling~~enactment of legislation which settles any Treaty of Waitangi claim ~~by iwi in respect of rivers or lakes dammed or diverted~~any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

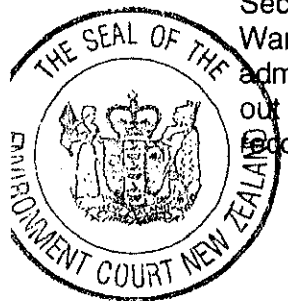
Lapsing of Consent

- 6 Pursuant to section 125(1) of the Resource Management Act 1991 this consent shall not lapse until the consent duration of 35 years expires.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such



charge in which case the appropriate charge is payable when the objection or appeal is determined.

Private Agreements

In granting this consent particular regard has been had to the agreements reached by the consent holder with Ngati Tuwharetoa, Ngati Tamakopiri, Ngati Whitikopeka, Ngati Hauiti and the Lake Rotoaira Trust.



**Monitoring Structures
Manawatu-Wanganui Region
101305**

Land use consent – To erect, place or extend structures within the Tongariro Power Development for the purposes of measuring flows and water quality or any other monitoring within the area bounded by maps NZMS 260 S19, T19 AND T 20 for a for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Responsibility for operations

- 1 The Consent Holder shall ensure contractors are made aware of the conditions of this resource consent and the need to comply with them.

Responsibility for structural integrity and erosion control

- 2 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of any activities authorised by this consent, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from those activities.

Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Fish passage and blue ducks

- 3 The activities authorised by this consent shall not prevent the passage of fish both upstream and downstream.
- 4 The activities authorised by this consent shall not disturb the nesting or breeding of blue ducks within a distance 200 metres upstream and downstream of the activity. This condition does not apply to essential works required to maintain the structural integrity or safe operation of a structure.

Effects of structure on water flow

- 5 Activities authorised by this consent shall not cause any reduction in the ability of any channel to convey flood flows and debris.

Control of contaminants from operation of machinery

- 6 All machinery shall be operated in a manner which ensures that spillages of fuel, oil and similar contaminants are minimised to the fullest extent practicable, particularly during refuelling and machinery servicing and maintenance. Refuelling and lubrication activities shall be carried out away from any water body such that any spillage can be contained so it does not enter any water body.

Discharges to water

- 7 Any materials used for activities authorised by this consent shall be used in ways that ensure that risks to aquatic ecosystems are minimised to the fullest extent possible.
- 8 Where as a result of the exercise of this resource consent, sections of the channel banks have in excess of five square metres of vegetation removed from them, the Consent Holder shall, where necessary, construct temporary sediment retention devices within the same working day to minimise channel bank erosion to the fullest extent practicable.



- 9 No dry cement shall be released into the watercourse. Any concrete placed in or adjacent to a watercourse shall be contained by a watertight form work in such a way that cement slurry is not able to seep out and enter the watercourse. New concrete shall not be exposed to the flow of water before it has hardened for at least 48 hours.
- 10 Any discharge of sediment directly associated with an activity authorised by this consent shall not occur for more than 5 consecutive days, nor for more than 12 hours on any one day within those 5 days.

Diversions

- 11 Any temporary diversion of water required to undertake activities authorised by this consent shall cease within 2 working days of the completion of the activity.
- 12 Prior to implementing condition 11 of this resource consent, the Consent Holder shall inspect the temporary diversion and any fish impounded within it shall be returned to the original watercourse as soon as practicable following their discovery.

Rehabilitation of Disturbed Areas

- 13 Within 20 working days of the completion of activities authorised by this consent, the Consent Holder shall stabilise and re-contour any disturbed areas to the satisfaction of the Manawatu Wanganui Regional Council in order to:
- i to limit sediment runoff or erosion to the greatest extent practicable,
 - ii remove any stockpiles of material and fill any depressions where these would adversely effect the flow of water.
- 14 Any disturbed areas shall be revegetated as soon as practicable in a manner consistent with existing vegetation cover at and about the site to the satisfaction of the Manawatu Wanganui Regional Council. The Consent Holder shall maintain the site until any re-vegetated area is established.
- 15 Any construction materials associated with activities authorised by this consent that are no longer required as part of the structure, and/or any temporary structures that are no longer required to undertake activities authorised by this consent, shall be removed within 2 working days following the completion of the activity.

Council Notification

16. The Consent Holder shall notify the Manawatu-Wanganui Regional Council in writing of its intention to erect or place any new structure or to extend any existing structure not less than 10 working days prior to exercising the consent. The notification shall include:
- i A description of the structure to be erected, placed or extended;
 - ii A description of the duration for which any new structure is intended to be erected or placed;
 - iii A description of the specific measures to be used to minimise the effects of the activities to be undertaken;
 - iv A description of the location in which any new structure is to be erected or placed or where any structure is to be extended.

Change or Cancellation of conditions

The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act at any time



within one month of the anniversary each year of the commencement of this consent.

Review (s128)

- 18 The Manawatu Wanganui Regional Council may in June of the fifth year after the commencement of this resource consent, and every 5 years thereafter, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review conditions 3 to 16 for the purpose of assessing their adequacy in avoiding, remedying or mitigating adverse effects on the environment and to amend those conditions or add further conditions if necessary.

Advice Note: Costs associated with any review of the conditions of this resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act 1991.

Lapsing of Consent

19. Pursuant to section 125(1) of the Resource Management Act 1991 this consent shall not lapse until the consent duration of 35 years expires.

Cultural and Spiritual Matters

- 20 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi") and Ngati Rangi Trust, ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi and Ngati Rangi Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Eastern and Western Diversions of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation between the Consent Holder and Whanganui iwi and Ngati Rangi Trust.
- ~~Provides tangata whenua~~ Whanganui iwi and Ngati Rangi Trust with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi and Ngati Rangi Trust into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.



- 21 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui iwi and Ngati Rangi Trust a written report on the matters referred to in condition 20, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 22 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 21, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Treaty Of Waitangi Claim Settlements

- 23 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Crown settling enactment of legislation which settles~~ any Treaty of Waitangi claim ~~by iwi~~ in respect of ~~rivers or lakes dammed or diverted~~ any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~ matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~ matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 24 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 23, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the ~~Crown settling enactment of legislation which settles~~ any Treaty of Waitangi claim ~~by iwi~~ in respect of ~~rivers or lakes dammed or diverted~~ any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying



out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.

Private Agreements

In granting this consent particular regard has been had to the agreements reached by the Consent Holder with Ngati Tuwharetoa, Ngati Tamakopiri, Ngati Whitikopeka, Ngati Hauti and the Lake Rotoaira Trust.



**Land Use – Booms and Screens
Manawatu-Wanganui Region
101306**

Land use consent – To place structures in streams, rivers and lakes upstream or downstream of Tongariro Power Development structures for operational and public safety reasons or to prevent material entering the structures within the area bounded by maps NZMS 260 S19, T19 AND T 20 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Responsibility for operations

- 1 The Consent Holder shall ensure contractors are made aware of the conditions of this resource consent and the need to comply with them.

Responsibility for structural integrity and erosion control

- 2 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of any activities authorised by this consent, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from those activities.

Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Activity location

3. No structure shall be placed in any water body (other than any artificial watercourse) more than 200 metres upstream or downstream of any TPD structure existing at the time that this consent commences.

Fish passage and Blue Ducks

- 4 The activities shall not prevent the passage of fish both upstream and downstream, other than for the purposes of:
 - i avoiding the entrainment of fish into diversion or intake structures, or
 - ii avoiding the transfer of fish between water bodies.
- 5 The activity shall not disturb the nesting or breeding of blue ducks within a distance 200 metres upstream and downstream of the activity.

Effects of structure on water flow

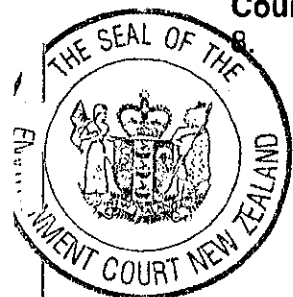
- 6 Activities authorised by this consent shall not cause any reduction in the ability of any channel to convey flood flows.

Notices warning of maintenance activities

- 7 Where activities authorised by this consent are undertaken in an area accessible to the public, then the Consent Holder shall erect notices that are easily readable from a distance of 5 metres adjacent to the location of any structure authorised by this consent. These notices shall provide warning of the activity. The notices shall be erected at least 5 working days prior to the commencement of any scheduled activity and shall not be removed by the Consent Holder for the duration of the activity.

Council notification

- 8 The Consent Holder shall notify the Manawatu-Wanganui Regional Council in writing of its intention to place any new structure in a stream, river or lake not



less than 10 working days prior to placement of the structure. The notification shall include:

- i A description of the structure to be placed;
- ii A description of the duration for which any new structure is intended to be installed;
- iii A description of the specific measures to be used to minimise any adverse effects of the placement of the structure;
- iv A description of the location in which any new structure is to be placed;
- v A description of the intended purpose of the structure.

Change or cancellation of conditions

9. The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act at any time within one month of the anniversary each year of the commencement of this consent.

Lapsing of Consent

10. Pursuant to section 125(1) of the Resource Management Act 1991 this consent shall not lapse until the consent duration of 35 years expires.

Cultural and Spiritual Matters

11. ~~The Consent Holder shall, after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi") and Ngati Rangi Trust, ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project ~~area that is within~~ as it affects their rohe.
- ii) ~~Ongoing consultation with Whanganui iwi~~ between the Consent Holder and Whanganui iwi and Ngati Rangi Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Eastern and Western Diversions of the TPD that:
 - ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation ~~consultation between the Consent Holder and Whanganui iwi and Ngati Rangi Trust.~~
 - ~~Provides tangata whenua~~ Whanganui iwi and Ngati Rangi Trust with full opportunity to formulate appropriate kaitiaki ~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
 - ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi and Ngati Rangi Trust into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.



- 12 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui iwi and Ngati Rangi Trust a written report on the matters referred to in condition 11, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 13 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 12, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Treaty Of Waitangi Claim Settlements

- 14 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Crown settling~~ enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~ matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

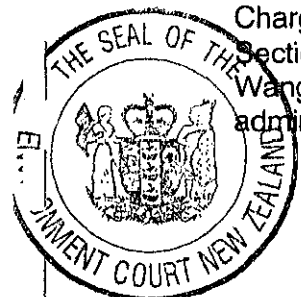
For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~ matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 15 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 14, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the ~~Crown settling~~ enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

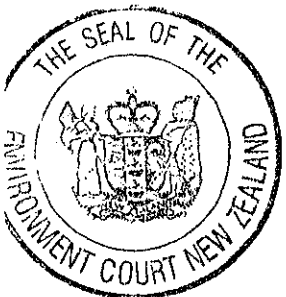
Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying



out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.

Private Agreements

In granting this consent particular regard has been had to the agreements reached by the Consent Holder with Ngati Tuwharetoa, Ngati Tamakopiri, Ngati Whitikopeka, Ngati Hauiti and the Lake Rotoaira Trust.



**Conveyance of Water Around Structures
Manawatu-Wanganui Region
101307**

Combined water permit and discharge permit – To take water, divert water and discharge water and any material contained therein for the purpose of:

- i) Conveying surface water and ground water around, through, over, under or past structures within the Tongariro Power Development;
- ii) Providing for water leakage to, from and through structures within the Tongariro Power Development:

except as provided for by other resource consents within the area bounded by maps NZMS 260 S19, T19 AND T 20 for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Responsibility for structural integrity and erosion control

- 1 The Consent Holder shall construct and maintain any works necessary to remedy riverbed or riverbank erosion occurring up to 100 m downstream of any activities authorised by this consent, if in the opinion of the Manawatu Wanganui Regional Council that erosion directly results from those activities.

Advice Note: A separate resource consent may be required as a result of the need to undertake erosion control works. Any such consent shall be obtained by the consent holder at its sole expense prior to any works being undertaken.

Lapsing of Consent

2. Pursuant to section 125(1) of the Resource Management Act 1991 this consent shall not lapse until the consent duration of 35 years expires.

Cultural and Spiritual Matters

- 3 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi") and Ngati Rangi Trust, develop a process to address the following matters on a process that provides for:

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi and Ngati Rangi Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Eastern and Western Diversions of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation between the Consent Holder and Whanganui iwi and Ngati Rangi Trust.
- ~~Provides tangata whenua~~ Whanganui iwi and Ngati Rangi Trust with full opportunity to formulate appropriate kaitiaki protocols ~~in relation to the operation, effects and monitoring of the TPD~~ and to implement them.
- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi and Ngati Rangi Trust into the



formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

- 4 The Consent Holder shall, ~~during calendar year in~~ February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui iwi and Ngati Rangi Trust a written report on the matters referred to in condition 3, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 5 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 4, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Treaty Of Waitangi Claim Settlements

- 6 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Grown settling~~ enactment of legislation which settles any Treaty of Waitangi claim ~~by iwi~~ in respect of ~~rivers or lakes dammed or diverted~~ any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~ matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~ matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 7 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 6, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the ~~Grown settling~~ enactment of legislation which settles any Treaty of Waitangi claim ~~by iwi~~ in respect of ~~rivers or lakes dammed or diverted~~ any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.



GENERAL ADVICE NOTES:**Administration charges**

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.

Private Agreements

In granting this consent particular regard has been had to the agreements reached by the Consent Holder with Ngati Tuwharetoa, Ngati Tamakopiri, Ngati Whitiokopeka, Ngati Hauti and the Lake Rotoaira Trust.



**Water Take
Manawatu-Wanganui Region
101309**

Water permit – To take up to 20 cubic metres of water per day for purposes related to the operation of the Tongariro Power Development other than generating hydroelectricity within the area bounded by maps NZMS 260 S19, T19 and T 20, for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Responsibility for operations

- 1 The Consent Holder shall ensure contractors are made aware of the conditions of this resource consent and the need to comply with them.

Recording of take locations

- 2 The Consent Holder shall maintain a record of the locations at which this consent is exercised and shall provide a copy of that record to the Manawatu Wanganui Regional Council upon request.

Take rate from rivers

3. The maximum rate of extraction of water from any river shall not exceed 10% of the discharge of the river at the point of taking at the time the water is taken.

Change or cancellation of conditions

4. The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act at any time within one month of the anniversary each year of the commencement of this consent.

Lapsing of Consent

5. Pursuant to section 125(1) of the Resource Management Act 1991 this consent shall not lapse until the consent duration of 35 years expires.

Cultural and Spiritual Matters

- 6 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi") and Ngati Rangi Trust, ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi and Ngati Rangi Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management ~~Plan that~~ Plan for the Eastern and Western Diversions of the TPD that:

- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation consultation between the Consent Holder and Whanganui iwi and Ngati Rangi Trust.
- ~~Provides tangata whenua~~ Whanganui iwi and Ngati Rangi Trust with full opportunity to formulate appropriate kaitiaki



~~protocols~~ protocols in relation to the operation, effects and monitoring of the TPD and to implement them.

- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi and Ngati Rangi Trust into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

- 7 The Consent Holder shall, ~~during calendar year in~~ February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui iwi and Ngati Rangi Trust a written report on the matters referred to in condition 6, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 8 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 7, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Treaty Of Waitangi Claim Settlements

- 9 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted~~ any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~ matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~ matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other



than condition 9, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the Grown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

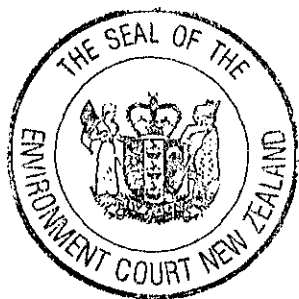
GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.

Private Agreements

In granting this consent particular regard has been had to the agreements reached by the Consent Holder with Ngati Tuwharetoa, Ngati Tamakopiri, Ngati Whitikopeka, Ngati Hauti and the Lake Rotoaira Trust.



**Stormwater Discharge
Manawatu-Wanganui Region
101310**

Discharge permit – To discharge stormwater from buildings and other structures onto or into land, or into water within the area bounded by maps NZMS 260 S19, T19 and T 20, for a duration of 35 years from the commencement of this resource consent subject to the following conditions:

Responsibility for operations

- 1 The Consent Holder shall ensure contractors are made aware of the conditions of this resource consent and the need to comply with them.

Discharge conditions

- 2 The discharge shall not drain any unroofed or unenclosed area or structure used for the storage, use or disposal of any hazardous substances or waste management purposes.
3. Where stormwater discharges onto land, the stormwater shall be directed away from any bare soil surfaces.
4. There shall be no conspicuous oil, grease, scum or foam present in surface water after reasonable mixing as a result of the exercise of this consent.
5. Appropriate erosion protection and energy dissipating devices shall be provided, where necessary to avoid erosion from the discharge, at any stormwater discharge outlet structure.
6. Any structure installed for the purpose of meeting condition 5 shall not prevent the passage of fish both upstream and downstream.

Change or cancellation of conditions

7. The Consent Holder may apply to the Council for a change or cancellation of any of the conditions to this consent by giving notice of its intention to do so pursuant to Section 127(1)(a) of the Resource Management Act at any time within one month of the anniversary each year of the commencement of this consent.

Lapsing of Consent

8. Pursuant to section 125(1) of the Resource Management Act 1991 this consent shall not lapse until the consent duration of 35 years expires.

Cultural and Spiritual Matters

- 9 The Consent Holder shall, ~~after consultation with~~ use their best endeavours to develop and reach agreement with the Whanganui River Maori Trust Board and Tamahaki Incorporated Society (collectively "Whanganui iwi") and Ngati Rangi Trust, ~~develop a process to address the following matters on a process that provides for:~~

- i) The provision of ongoing cultural and spiritual advice to the Consent Holder about the TPD project area ~~that is within~~ as it affects their rohe.
- ii) Ongoing consultation ~~with Whanganui iwi~~ between the Consent Holder and Whanganui iwi and Ngati Rangi Trust on matters pertaining to the operation and effects of the TPD.
- iii) Preparation and implementation of a Cultural Management Plan ~~that~~ Plan for the Eastern and Western Diversions of the TPD that:



- ~~Makes provision for tangata whenua to have easy entry to the process through the creation of a co-operative environment to facilitate~~ Facilitates on-going consultation between the Consent Holder and Whanganui iwi and Ngati Rangi Trust.
- ~~Provides tangata whenua~~ Whanganui iwi and Ngati Rangi Trust with full opportunity to formulate appropriate kaitiaki protocols in relation to the operation, effects and monitoring of the TPD and to implement them.
- ~~Allows tangata whenua the opportunity for input into the formulation and implementation of management plans and monitoring programmes~~ Provides for the input of advice and information by Whanganui iwi and Ngati Rangi Trust into the formulation and implementation of management plans and monitoring programmes in relation to the operation and effects of the TPD.

For the avoidance of doubt, it is expected that discussion about management plans and monitoring programmes referred to in this condition will include scientific matters.

- 10 The Consent Holder shall, ~~during calendar year~~ in February 2009, provide to the Manawatu Wanganui Regional Council, Whanganui iwi and Ngati Rangi Trust a written report on the matters referred to in condition 9, including advice as to the steps taken by the Consent Holder to avoid, remedy or mitigate any cultural or spiritual effects of the activities authorised by this consent.

Consent Review (Cultural and Spiritual Matters)

- 11 The Manawatu Wanganui Regional Council may, within 3 months of receiving the report required by condition 10, serve notice on the Consent Holder under section 128 (1) of the Resource Management Act 1991 of its intention to review the conditions of this consent in terms of their adequacy in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend those conditions or add further conditions if necessary.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of ensuring the adequacy of the conditions in avoiding, remedying or mitigating the cultural and spiritual effects of the activities authorised by this consent and to amend the conditions or add further conditions if necessary.

Treaty Of Waitangi Claim Settlements

- 12 The Manawatu Wanganui Regional Council shall, within 12 months of the ~~Grown settling~~ enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD, serve notice on the Consent Holder under section 128 of the Resource Management Act 1991 of its intention to review any or all the conditions of this consent for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the said settlement~~ matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

For the avoidance of doubt, any review pursuant to this condition may impose further or additional review conditions for the purpose of making the consent consistent with all ~~Resource Management Act 1991 matters contained in the~~



said settlement matters contained in the said legislation that affect the application or operation of the Resource Management Act 1991 or the application or operation of this consent.

- 13 The Consent Holder may apply to the Manawatu Wanganui Regional Council for a change or cancellation of any or all of the conditions of this consent, other than condition 12, by giving notice of its intention to do so pursuant to section 127(1)(a) of the Resource Management Act 1991 within 12 months of the Crown settling enactment of legislation which settles any Treaty of Waitangi claim by iwi in respect of rivers or lakes dammed or diverted any rivers, lakes or other waterways dammed or diverted or otherwise affected by the TPD.

GENERAL ADVICE NOTES:

Administration charges

Charges, set in accordance with section 36 of the Resource Management Act 1991, and Section 690A of the Local Government Act 1974, shall be paid to the Manawatu Wanganui Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of this resource consent and for the carrying out of its functions under Section 35 (duty to gather information, monitor, and keep records) of the Act, except where an objection or appeal is lodged against any such charge in which case the appropriate charge is payable when the objection or appeal is determined.

Private Agreements

In granting this consent particular regard has been had to the agreements reached by the Consent Holder with Ngati Tuwharetoa, Ngati Tamakopiri, Ngati Whitikopeka, Ngati Hauiti and the Lake Rotoaira Trust.

