Report of decision of the HBRC Regulatory Hearings Committee

Meeting held in the Council Chambers, 159 Dalton Street Napier

14th May 2008, commencing at 9.00am

A Hearings Committee ("the Committee") of the Hawke's Bay Regional Council was convened to hear the resource consent application lodged by Hastings District Council relating to the renewal of their existing water permit to take water from three wells located on Brookvale Road reserve in Havelock North. The application, made in accordance with the Resource Management Act 1991 (RMA), was lodged with the Hawke's Bay Regional Council and referenced as WP070080T.

PRESENT:	**Hearings Committee** Cr Christine Scott, Chairman Cr Ewan MacGregor Dr Greg Ryder (Commissioner)
APPLICANT:	**Hastings District Council (HDC)** Mr Bruce Gilmore (Bannister & von Dadelszen), Counsel for the Applicant Mr Brett Chapman, Water Services Manager, HDC Mr Dylan Stuijt, Water Supply Manager, HDC Mr Tim Grace, Planning Consultant, MWH Mr Andrew Lamason, Environmental Assessments and Monitoring Limited Dr Mark Gyopari, Phreatos Limited
CONSENT AUTHORITY:	**Hawkes Bay Regional Council** Mr Sven Exeter, Reporting Officer Mr Darryl Lew, Manager Regulation, Environment Group Mr Brett Stansfield, Freshwater Scientist Dr Tom Brooks, Groundwater Scientist
SUBMITTERS:	Mr J.W. Cooper (for J.W. and M.J. Cooper) Mrs B. Frogley Mr J. Frogley
IN ATTENDANCE:	Mrs Janeen Kydd-Smith (Decision Report Writer)
APOLOGIES	G. and K. Jones (Submitter)

1. Description of the Proposed Activity

Hastings District Council (HDC, the Applicant) has applied to renew resource consent WP020405T under the new consent WP070080T to take water from three wells (well numbers 1329, 2106 and 4151) located on the Brookvale Road reserve, in Havelock North. The application is for a combined maximum rate of take of up to 200 L/s from all three bores and a maximum 7 day volume of 101,281 m^3 per week. The proposed rate and volume of take is the same rate and volume as the consent the Applicant currently holds (WP020405T).

The source of water abstracted by the three wells is partly from the Te Mata Aquifer system and partly from groundwater that would otherwise flow into the Mangateretere Stream. Due to this circumstance the application assesses effects of the take upon both groundwater and surface water.

2. Regional Plan Rules Affected

The proposed activity does not comply with Permitted Activity Rules 53 and 54 of the operative Hawke's Bay Regional Resource Management Plan (August 2006) (RRMP) and is deemed to be a discretionary activity in accordance with Rule 55 of the RRMP.

3. Notification and Submissions Received

The application was notified on 30 June 2007 pursuant to Section 93 of the Act. Submissions closed on 27 July 2007. A total of seven submissions were received. Tables 1 and 2 below provide a summary of the written submissions received and the main issues raised:

Table 1: Opposing Submissions

Opposing Submissions	Issues Raised	Relief Sought
JN & BJ Frogley	• Since Brookvale bores have been sunk Mangateretere stream water levels have been severely affected, dries up every summer. Until those bores were sunk the stream never dried up. • Previously held a consent to take from Mangateretere but the stream was often on ban due to insufficient flow caused by HDC's draw-off. • Napier & Thompson Road gauging sites are not a true indication of Mangateretere flow at Brookvale Road. • Lack of water supply for domestic needs, irrigation, firefighting, wildlife habitat and watercress. • Mangateretere Stream aesthetically compromised and is a "stinking bog".	• HDC to only take from one bore at no more than 90 L/s. • Effects on the environment, submitter's common law riparian rights and adjoining owners' ability to irrigate be considered. • The Council should identify mitigation measures for current detrimental effects caused by the Applicant on the environment and local residents and farmers.
John Falls	• Over 4-5 years marked reduction in the rate of flow in Taco Drain, dries up in summer. • Water in submitters domestic well not available when pumping his other well for irrigation. • No consultation over additional wells when they were put in.	• Wants a condition regarding take rate not being 200 L/s in the height of summer. • Alternative public water supply investigated

Gerald Anthony William Mulinder (Emrhett Ltd)	• Lowers stream levels in the Mangateretere Stream.	• Decline the application.
Michael Desmond Lawson and Eileen Rose Lawson	• Lowers stream levels in the Mangateretere Stream. • Harmful effects on the streams flora & fauna, diminishes in-stream habitat for fish and water fowl. • Increased odour during drought. • The take is contrary to Policy 74 RRMP, stream has no allocatable volume. • Pump tests are flawed: the test was conducted in August/September and only pumped well no. 4151 the furtherest away from the Mangateretere Stream. • Water levels of the Mangateretere Stream were monitored by HDC staff • Understate the effect on the upper reaches of the stream. • Granting the consent would be inconsistent with past applications for consent to take water from the Mangateretere Stream which have been declined. • Reduces future recreational use. • Contrary to Part 2 of the RMA which requires sustainable management and effects to be avoided, remedied or mitigated.	• Decline the application. • Other options for the supply of water should be used such as taking from a different aquifer or drilling deeper. • User pays system and improve existing infrastructure to minimise leaks and wastage.
Ngati Kahungunu Iwi Inc .	• Tukituki consents have priority over Brookvale, and should be sorted first. • Excess use of water is against the RRMP, Havelock North residents use more water than the national average. • Depletion in flow of Mangateretere Stream against RRMP. • Applicant has not assessed the effects on cultural values in the Mangateretere & Karamu Streams. • Decline in groundwater levels is mining the resource and not sustainable. • HDC had the opportunity to submit on the plan provisions for minimum flows but didn't. • Karamu Stream near the floodgates site has been found to be highly polluted hence the Mangateretere Stream provides refuge for native fish species. • AEE is deficient in regard to pump tests and effects on stream flow. • Current consent has expired in terms of the RMA.	• Decline the application. • Other options for the supply of water should be used.

Table 2: Supporting Submissions

Supporting Submissions	Issues Raised	Relief Sought
Graeme Allan Jones and James Wilson Cooper	• Prior to the taking from the two newer HDC wells, flow in the Mangateretere Stream hardly altered. At times since all three wells have operated the flow has reduced to a trickle and at one stage stopped all together at Thompson Road. • The Mangateretere Stream is not a natural waterway. It was dug by landowners in the 1880s.	• Agree on the grounds there will be no increase in rate of take and maximum weekly volume. • Flow should be checked at Thompson Road as well as at Napier Road. • No new wells drilled for town supply. • Adverse effects be taken into account during dry periods. • If greater volumes are required for town supply this area is not looked at.
GH Wilson, JW Cooper & B N Lessels	• Concerned that any increase will impact on adjacent property owners to irrigate.	• Want the HDC take to be limited to existing amount of water taken. • Want the Council to continue to closely monitor draw down and HDC not to drill any more wells in this area.

4. Pre-Hearing Meetings

A pre-hearing meeting was held between HDC and Ngati Kahungunu Iwi Inc. on 12 November 2007. Another pre-hearing meeting was held on 13 November 2007 between HDC and the neighbouring landowners.

4.1 12 November 2007 Pre-Hearing Meeting

The outcome of the 12 November 2007 pre-hearing meeting was agreement by Ngati Kahungunu Iwi Inc. (NKII) to consult and discuss with hapu the issue of withdrawing their right to be heard at a hearing. HDC also agreed to send NKII a letter stating that it would consult with Iwi on water supply matters, particularly with regard to establishing a new bore field, and in regard to developing a Water Management Strategy.

HDC wrote to NKII on 16 April 2008 to confirm what had been discussed at the pre-hearing meeting and to outline HDC's intention to strategically withdraw from the Brookvale Road bores as a primary water source. HDC acknowledged that there was a baseline effect on the Mangateretere Stream linked to the Brookvale Road bores and it did not wish to continue operating the bores as a primary water supply source into the future. A copy of the letter from HDC to NKII is attached in Appendix 1 of this report.

In response to the letter from HDC, NKII wrote to the Hawke's Bay Regional Council (the Council) on 7 May 2008 to advise that they agreed to withdraw their opposition to the consent being granted due to HDC's assurances that they:

1. *Will eventually cease using the Brookvale Road bores as a primary domestic water supply, but that commissioning an alternative supply and building necessary infrastructure will take up to ten years.*

2. *Agree that the abstraction of water from these bores has an effect on the Mangateretere Stream.*

3. *Agree to a ten-year consent period.*

NKII also advised that they no longer wished to be heard at a hearing. A copy of the NKII letter is attached in Appendix 2 of this report.

4.2 13 November 2007 Pre-Hearing Meeting

With regard to the pre-hearing meeting on 13 November 2007, between HDC and the neighbouring landowners, the neighbouring landowners advised that they were in generally in agreement with the draft consent conditions presented at the pre-hearing meeting. Three submitters (E. Lawson, M. Lawson and G. Mulinder) also advised that they did not wish to attend a hearing. Four submitters (J. Frogley, B. Frogley, J. Cooper and G. Jones advised that they were still contemplating whether to be heard at a hearing. Mr Falls, who was not present at the pre-hearing meeting, subsequently advised that he did not wish to be heard at a hearing.

Following the pre-hearing meeting on 13 November 2007, J & B Frogley, G. & K. Jones, and J. & M. Cooper requested that Council staff meet with them to discuss their concern that the Napier Road monitoring site was not representative of the flow further upstream of the Mangateretere Stream at Thompson Road, as the flow at Thompson Road was considerably less than the flow at Napier Road. Council staff met with the submitters on 5 December 2007 at the Napier Road monitoring site to explain how the flow of the stream was measured. The Council staff and submitters also visited the Mangateretere Stream at Thompson Road and at the Cooper's property to view the stream flow.

On 20 December 2007 J & B Frogley, G. & K. Jones, and J. & M. Cooper wrote to HDC outlining their concerns and their proposed conditions for the resource consent.

The Applicant's planning consultant (Mr Grace) subsequently met with J & B Frogley, G. & K. Jones, and J. & M. Cooper to seek resolution with regard to their letter. No resolution was found and the submitters advised that they still wished to be heard at a hearing.

5. Site Visit

The Committee conducted a site visit of the entire length of the Mangateretere Stream and of the submitters' properties on Tuesday, 13 May 2008. The Committee was accompanied by Mr Exeter and Mr Darryl Lew and Dr Tom Brooks. Strict resource management site visit protocols were observed in relation to staff/hearings committee interaction.

6. Procedural Matters

During the hearing Counsel for the Applicant raised concerns that Council staff had introduced new evidence in relation to potential effects of the proposed take on the instream ecological values of the Mangateretere Stream and the Karamu Stream.

Mr Lew clarified for the Committee that the comments made in relation to the instream ecology of the Karamu Stream related to paragraph 3.12 of Mr Exeter's submission presented at the hearing which noted the following comments made by Mr Stansfield in relation to the audit Mr Stansfield undertook of the AEL (2004), MWH (2007a) and EAM (2008) reports:

> *"I am in agreement with the AEL authors' report that the stream depletion effects at the proposed increased groundwater abstraction levels to have potentially more than a minor effect on fish habitats in the upper and middle reaches of the Mangateretere Stream. It is likely that this will reduce the habitat quality for inanga, large long fin eels and rainbow trout. I am also in agreement with the author's comment that the stream depletion effects from the proposed abstraction will be minor in the Karamu Stream."*

The Committee accepted that the reference in evidence to the instream ecological values of the Karamu Stream was new evidence and should not be allowed.

In his submissions, Mr Lew had also referred the Committee to the Council Officer's Report which considered that the effects of the proposed take on the instream ecology of the Mangateretere Stream were 'potentially' more than minor. However, based on submissions made by Mr and Mrs Frogley at the hearing, which referred to stream flow in the upper reaches of the Mangateretere Stream having ceased over extended summer months since Brookvale Road Bores BV2 and BV3 had been added, Mr Lew now considered the 'actual' effects of the take on the instream ecology of the Mangateretere Stream to be more than minor.

The Committee accepted that the evidence Mr Lew had submitted provided further clarification of evidence that had been previously referred to.

Mr Grace and Counsel for the Applicant also raised the question of whether the efficiency of the use of the water taken was a matter that the Committee could consider under the RMA. The Committee was satisfied that this was a matter it could consider under section 7(b) of Part 2 of the RMA and under Policy 39(a) of the Regional Resource Management Plan which states that:

> *(a) The water requirement for each resource consent applicant will be determined on the basis of reasonable needs and the efficiency of end use, requiring an applicant to determine how much water is required for their activity.*

Finally, Counsel for the Applicant questioned whether it was appropriate for the Committee to invite Council staff to request more detailed information from the Applicant through questions of the Applicant through the Chairman of the Committee at the hearing, rather than request it prior to the hearing. In this regard the Committee was satisfied that the questions were appropriate and relevant to enabling Council staff to review the appropriateness of their recommendations to the Committee, and to clarify matters for the Committee to assist it with its decision-making.

7. Evidence Heard

The Committee heard submissions of evidence from the Applicant, expert witnesses, submitters, the Council's Reporting Officer and Council's Freshwater Scientist. The following is a summary of the evidence heard at the hearing.

7.1 Applicant's Submissions of Evidence

Mr Chapman

Mr Chapman advised that the separate Hastings and Havelock North water supplies were inter-connected after the amalgamation of the Havelock North Borough and Hastings City Council in 1989. He advised that the Brookvale Road bores currently operated on a continuous basis to sustain an essential potable water supply to Havelock North residents.

Mr Chapman confirmed that investigations undertaken by HDC had established that the abstraction of groundwater from the Brookvale Road bores was having an effect on the surface water flows of the Mangateretere Stream. He noted however that the effects on the Mangateretere Stream had historically occurred and that the continued take was unlikely to create any potential for adverse effects above the current known conditions to an extent that would significantly alter the current environment within the waterway.

Mr Chapman advised that the Council was embarking on the development of a district-wide Water Management Strategy to determine the possible future needs of the region, taking into account factors such as predicted residential and industrial growth, the changing needs of the communities,

climate change, and the impacts of legislation. He noted that a significant part of this exercise was the implementation of demand management and water conservation strategies consistent with an agreed level of service to ensure the most efficient use of the water. Mr Chapman advised that the document was being developed in conjunction with a number of stakeholders including the Regional Council, other Territorial Local Authorities, Iwi and community focus groups and was to be included as part of a regional growth strategy initiative being jointly funded by the Council, Napier City Council and HDC.

Mr Chapman noted that the Consent Officer's Report had referred to the current level of water consumption of Hastings and Havelock North as being over double the average per capita consumption level for New Zealand. He advised that this higher level of consumption needed to be viewed in context with the climatic conditions of the region and the wealth of water resources that had historically been available.

Mr Chapman explained that HDC Bylaws enabled HDC to implement a number of measures to manage water use at an individual and community wide level, including metering of all non-domestic users on the water supply network. He noted however that unmeasured commercial use of the system had historically been included in the HDC water consumption figures which resulted in reported per capita consumption figures being over-estimated. Mr Chapman advised that HDC was now requiring metering on all non-domestic connections.

Mr Chapman advised that HDC's current conceptual strategy was to retreat from the Brookvale Road bore supply as a primary source within the next 10 years, and to retain it as an augmentation source to supplement supply and provide an emergency water supply. This would be achieved through the development of a new source(s) strategically placed to intercept the Heretaunga Plain aquifer system. Mr Chapman advised that HDC had made significant investment in infrastructure associated with the Brookvale Road bore supply and its current Gross Replacement Cost was $3.5M. He noted that the depreciated cost of the investment still retained by those assets as a direct cost to the community was $2.8M.

Mr Chapman advised that HDC would be proposing additional projects to support the development of an alternative water supply source to replace the Brookvale Road bores as a primary source for Havelock North in its 2009-2019 Long Term Council Community Plan (LTCCP). He also noted that initial estimates for a new source and infrastructure development to replace the Brookvale Road bores was in the region of $8 -10M.

Mr Stuijt

Mr Stuijt advised that Brookvale bores BV1 and BV2 were established between 1982 and 1986 and had essentially provided all of Havelock North's water supply until 1998, when Brookvale bore 3 was established. Mr Stuijt advised that bore BV3 was provided in response to the development of the Arataki area, but bores BV1 and BV2 were still the backbone of the Havelock North supply and supported all the higher elevation properties in Havelock North which represented 75% of Havelock North's population. He explained that the 375 mm rising main for the system was designed to accommodate significantly higher than normal pressure heads to supply the higher elevation properties.

Mr Stuijt explained that when consent was given by the Council for HDC to establish Brookvale bore BV3, this was on the condition that it utilise the unused capacity of the existing Napier Road bore, and that the Napier Road bore remain as an emergency backup supply.

Mr Stuijt advised that in terms of the water take from the Brookvale Road bores it was not possible for the bores to take more than 167 L/s as this could not be physically exceeded by the pumps. He noted that during the winter the pumps consistently operated at 90-100 L/s.

Mr Stuijt noted that there were two interconnections between the Hastings and Havelock North supplies which provided emergency links should either source fail. He explained that current network limitations prevented these interconnections from being used in any operational capacity. He also noted that during summer months the Eastbourne Street supply in Hastings ran at full capacity and was unable to provide any additional water into the Havelock North system. Furthermore, no other source in Hastings was able to redirect water into Havelock North.

In terms of storage, Mr Stuijt advised that the reservoirs in Havelock North provided sufficient water to keep the supply running in summer for 3 hours if there was a power failure in the system. During winter the reservoirs provided 24 hours of water storage. He advised that it was not possible to store enough water to provide a greater buffer period of time and the storage was mainly there for fire fighting purposes. Mr Stuijt advised that HDC mainly relied on standby generators to maintain the water supply in emergencies.

Mr Stuijt advised that HDC was currently investigating whether it was possible to make some moderate system improvements to the Napier Road bore that could marginally reduce the peak summer abstraction at Brookvale Road. He explained that HDC was also looking at sinking a new bore at Eastbourne Street if possible to provide additional water to the Havelock North system.

Mr Stuijt advised that the Hastings and Havelock North water demand was around 570-580 L/person/day (or 210 m^3/year) which was approximately 1.5 times the recommended New Zealand (NZ) design figure of 400 L/person/day. He advised that the recommended NZ design could not be applied to the North Island's east coast as it had significantly lower rainfall and generally hotter summers. Mr Stuijt advised that, compared to equitable regions in terms of rainfall and climate, the Hastings/Havelock North water consumption level was at or below average. He also noted that water demand in Hastings/Havelock North was considerably less when compared internationally, such as with the United States of America.

With reference to the demand rate of 570-580 L/person/day, Mr Lew asked Mr Stuijt what the peak demand was for the water supply system. Mr Stuijt advised that daily peaks in water demand were buffered by the existing reservoir storage facility. He also advised that it was not possible to manage peak demand as it occurred at the same time daily, could not be staggered, and was not something that HDC could control (e.g. HDC could not control the times people awoke and showered, etc.).

Mr Stuijt advised that there was now generally no difference between the use of water in the weekend, and use during the rest of the week. He noted that the only variations that occurred were between night and day.

Mr Lew asked Mr Stuijt whether the peak daily demand in water use was driven by external/outdoor water usage during summer. Mr Stuijt advised that he did not have the summer peak daily use figures, but acknowledged that water usage would vary in summer due to outdoor use. Mr Stuijt advised that the demand figures he had provided only related to usage during the winter.

Mr Stuijt explained there tended to be a perception that irrigating gardens was an inefficient use of water. However, he considered that there needed to be a whole community debate over whether watering lawns and gardens was appropriate. Mr Stuijt noted that there was generally an expectation in the community that they should be able to come home from work and water their lawns.

In response to a question from the Committee about why the water demand figures he quoted were less than the figures quoted in the Council Officer's Report (i.e. 726-762 L/person/day), Mr Stuijt suggested that the higher figures had included industrial and commercial metered water use.

Mr Stuijt advised that water use in Havelock North was perceived to be high but it was comparable to use in Hastings and Flaxmere. In response to a question from the Committee about the level of

consumption in Napier City, Mr Stuijt advised that he did not know the consumption level, but noted that the Napier City Council system operated at a significantly lower level of pressure than Hastings and was an older network, which could affect consumption levels.

Mr Stuijt advised that Gisborne District Council had invested $12M to provide a water supply augmentation plant with the aim of providing 550-600 L per day per person during the summer.

Mr Stuijt advised that HDC had implemented a strong asset renewal strategy which ensured that the Hastings and Havelock North water supply remained efficient for its intended purpose and to minimise water leaks. He noted that the majority of the supply system had been installed in the last 20 years and approximately 43% of the reticulation system was made up of modern materials such as PVC, Polyethylene, Ductile Iron, or Concrete Lined Steel. He advised that HDC currently budgeted $1 - $1.5M per annum on water main renewals.

Mr Stuijt advised that if the Brookvale Road bores were switched off completely during the lowest demand period (winter) all properties in Havelock North with an elevation above Duart House would cease to have water. Approximately 1500 properties would continue to have water which would be supplied by the Eastborne Street bores.

However, Mr Stuijt advised that in the summer period the Eastbourne Street bores had no spare capacity for Havelock North therefore approximately 75% of Havelock North (approximately 7,500 persons) would have no water during summer if the Brookvale Road bores were switched off.

Mr Stuijt referred to the "Health (Drinking Water) Amendment Act 2007" which required drinking water suppliers to provide a minimum level of quality and continuity of supply. Mr Stuijt noted that the Heretaunga Plains Aquifer water could meet the National Drinking Water Standards without any level of treatment.

Mr Stuijt advised that HDC was considering a number of options to replace the existing Brookvale Road bores, including:

- Increasing supply from Eastbourne Street, Hastings
- Temporarily increase supply from the existing Napier Road bore, and
- Provide a new source near Whakatu to allow for a greater growth scenario.

Mr Stuijt advised that discussions in regard to the best location of the source would be carried out with the Council and Iwi in the near future. To enable a new source to be developed and associated infrastructure established, Mr Stuijt advised that a minimum period of ten years was required. Mr Stuijt estimated that the cost of doing this would be around $8M-$10M.

Mr Stuijt advised that there would be a loss to HDC of around $2.8M in removing the water supply from Brookvale Road. He noted that HDC could not justify writing off this amount of money and therefore wanted to be able to retain Brookvale Road as a back-up and emergency supply until it had got a return on the value of the infrastructure it had invested.

Mr Stuijt advised that HDC was investing in a number of initiatives that would contribute towards the long term sustainability of the water resource. He noted that over the next 10 years HDC intended to identify and develop a new water source and to construct new infrastructure to enable it to retreat from Brookvale Road. However Mr Stuijt acknowledged that there was a possibility that retreat from Brookvale Road could extend beyond a ten year timeframe.

Mr Stuijt referred to a study that had been carried out by Wide Bay Water in Australia that demonstrated that the most effective means of reducing water consumption was to decrease the network pressures. He noted that the study had found that reductions in pressure of approximately 110 Kpa could achieve a 5% reduction in total water consumption. Mr Stuijt advised that HDC had already embarked on a pressure reduction programme, with full implementation expected within 10 years, as well as a programme of active leak control.

Mr Stuijt advised that leakage problems were common in very old reticulation systems. He explained that HDC replaced water mains early and that the Hastings/Havelock North system was relatively new. As such, he noted that HDC was confident that there were few leaks in its system. Nonetheless, Mr Stuijt advised that HDC was looking at purchasing 'Correlator' instruments in the next financial year which would enable them to detect any leaks.

In response to a question from the Committee about what reduction in water usage could be achieved through public education, Mr Stuijt advised that education was about changing the mindset of people and would have an impact over time. He noted however that other methods, such as lowering the supply pressure, would create an immediate reduction in water use. He also advised that HDC needed to look at achieving a reduction in water use over the whole community as HDC did not want to single out a certain part of the community.

Mr Stuijt advised that HDC had introduced a public awareness campaign. This campaign had been started through local radio stations and was to be expanded into news papers and road side notices.

Mr Stuijt noted that mandatory water restrictions had some benefit in water savings but were a very intrusive measure. He advised that typical results from studies undertaken had shown that public education and metering had negligible results in terms of reducing total system usage. He noted that the Wide Bay Water study had demonstrated the greatest savings had been achieved from pressure reduction compared to other measures.

In response to a question from the Committee with regard to the number of times HDC had needed to impose water use restrictions during drought conditions, Mr Stuijt advised that HDC had only imposed restrictions when there was limited ability to supply water. Mr Stuijt advised that water restrictions did not generally work as people tended to use more water during the times they were allowed to take water.

In response to a question from the Committee about whether charging for water from extraordinary connections had affected water consumption levels, Mr Stuijt advised that metering and charging did not seem to significantly affect consumption. As an example, Mr Stuijt noted that rural residential properties tended to be owned by people with high incomes, therefore the cost of water did not seem to be a disincentive to using more. He noted that users seemed to have no issue in paying 40 cents/m^3 for their water.

Mr Stuijt explained that the 40 cents/m^3 charge rate for rural-residential users was the total operational cost of supplying the water through the network, including asset management costs and capital costs. He noted that the cost was relatively cheap as HDC did not need to treat the water.

Mr Stuijt advised that approximately 50% of industrial and commercial users in the District were metered for water supply.

In response to the Committee about whether there was any combination of the use of the three Brookvale Road bores that would result in a reduction in the rate of depletion of the Mangateretere Stream, Mr Stuijt advised that HDC had found the best combination would result in a 4 L/s reduction in stream depletion. He noted that it was the current regime which achieved this and no other combination was able to achieve a better result.

Dr Gyopari

Dr Gyopari explained that he was a Hydrogeologist engaged by HDC to assess the environmental effects of the proposed groundwater abstraction, particularly the potential depletion effects on the Mangateretere Stream.

Dr Gyopari noted that agreement had been reached between the Council and the Applicant that the depletion effect of the take from the Brookvale Road bores was around 62 L/s at a peak abstraction rate of 200 L/s. From his independent evaluation of the data, including analysis using the Hunt (2003) method for confined aquifers, Dr Gyopari advised that he was confident that this agreed level of depletion was reasonable. He noted that pump tests of the bores in Brookvale Road had clearly shown that abstraction from the bores reduced the flow of the Mangateretere Stream. He also noted that bore BV1, being only 40 m from the stream, had a significantly greater effect on flow than bore BV3 that was further away. He advised that the effect of drawn down reduced as the distance of the bores from the stream increased.

Dr Gyopari noted that if bore BV1 and bore BV3 were run together, there would be only about a 4 L/s difference in the stream depletion rate than running bore BV1 on its own.

Dr Gyopari advised that he concurred with the Council Officer's report that the Te Mata Aquifer could sustain the take from the HDC Brookvale Road wells without resulting in long term adverse draw downs.

With respect to effects of the draw downs on other groundwater users, Dr Gyopari explained that there were no adversely affected groundwater users in the vicinity of the Brookvale Road bores. This was primarily because the wellfield had been established for more than two decades and any interference effects on other groundwater users would have become apparent over that time. He noted that the Te Mata Aquifer exhibited a very high transmissivity which enabled high abstraction rates to occur without causing large aquifer draw downs. He considered that any interference effects on neighbouring wells would be no more than minor and would have been occurring at least since 2001 when the HDC were granted consent to take 200 L/s. Dr Gyopari explained that the simple calculations used to determine this had assumed fully confined aquifer conditions, whereas in reality the aquifer exhibited a leaky-confined characteristic which resulted in much lower draw downs during pumping.

With respect to effects of the take on downstream surface water users, Dr Gyopari considered that the Council Officer's report had adequately assessed the impacts of depletion in the Mangateretere Stream on downstream surface water users in the Karamu Stream Management Zone as being minor. He concluded that the renewal of the resource consent under the same abstraction conditions that were consented in 2001 would not result in any significant change to the depletion effects of the stream.

Mr Lamason

Mr Lamason explained that he was an ecological consultant from Environmental Assessments and Monitoring Limited (EAM) who specialised in terrestrial and freshwater ecology. He advised that he had been engaged by the Applicant to assess and report on the current ecological health of the Mangateretere Stream at the currently consented abstraction regime and to compare the findings with those of previous ecological assessments of the stream. He advised that assessments had been undertaken by Aquatic Ecology Limited (AEL) in 2004[1], and Fish and Game New Zealand (FGNZ) in 2001[2].

[1] AEL (2004). Stream Depletion Effects on the Aquatic Ecology of the Mangateretere Stream and the Karamu River. Aquatic Ecology Limited.

[2] Fish and Game New Zealand, (2001). Mangateretere Stream Ecological Assessment.

Since the previous assessments had been undertaken, Mr Lamason advised that there did not appear to have been any noticeable changes to fish communities in the Mangateretere Stream. He noted that the diversity of fish species within the stream indicated a moderate to above average lowland rural stream ecosystem.

Mr Lamason noted that macroinvertebrate results recorded in the AEL report were very similar to those of his survey, as were Taxa Richness scores, indicating that taxa numbers were low to moderate, indicating a moderately healthy system. He noted that there did not appear to have been any noticeable changes to the macroinvertebrate communities in the stream since the earlier surveys.

Mr Lamason concluded from his survey that the current rate of groundwater abstraction did not appear to have adversely altered aquatic ecosystems within the Mangateretere Stream since the last survey by AEL in 2004. He noted, however, that the effects of abstraction of groundwater on the stream were difficult to assess due to the lack of a true baseline survey of habitat and fauna for the stream.

Mr Lamason explained that the Mangateretere Stream had very little in terms of quality riparian vegetation, had very low levels of shading in the upper and mid reaches, excessive growths of introduced macrophytes, elevated levels of inorganic nutrients, areas of bank collapse through stock induced erosion, and was likely to receive spray drift inputs from nearby agricultural operations. He considered that these other factors had contributed to the potential reduction in habitat quality and adverse fluctuations in water temperature and dissolved oxygen. They could also reduce the quality of the benthic habitat through siltation smothering the bed and reducing the availability of preferred food species for several fish species located in the stream.

Mr Lamason noted that the fish species composition of the Mangateretere Stream were what was expected for a typical low elevation nutrient enriched stream in Hawke's Bay and were consistent with those populations expected to be found in any of the Karamu tributaries. He noted, however, that there was insufficient historical information available to ascertain if significant shifts in the ecosystems of streams within the Karamu system had occurred due to water abstractions or other factors, or a combination of both.

With respect to the Council Officer's report, Mr Lamason advised that he did not consider that the stream could be discounted as a high value stream in terms of trout habitat. He explained that all fish species recorded in the Mangateretere Stream were known to have wide habitat preferences in terms of flow and were all commonly found in areas of very low or absent flows such as swamps, ponds and lakes. Therefore a reduction in the water level might lead to a reduction of the available habitat but not a change to the habitat type.

Mr Lamason advised that the amount of available habitat in the Mangateretere Stream was likely to have been affected by the reduced volume of water in the stream during pumping. He considered this was likely to recover during stoppages in pumping with little if any lasting effect on the fish populations of the stream. He noted that it was important to keep this temporary reduction in marginal habitat from stream depletion associated with the Brookvale Road bores in context to the impact of seasonal vegetation clearing that occurred during the Heretaunga Plains Drainage Scheme maintenance programme and other rural activities.

Mr Lamason explained that despite the limitations on the habitat of the Mangateretere Stream, the stream retained a diversity of species typical of a lowland stream in the Hawke's Bay region irrespective of the abstraction occurring. He considered that this species composition was unlikely to change in the next ten years at the current abstraction rate provided all other environmental influences remained similar.

Mr Lamason concluded that he did not agree with the indication in the Council Officer's report that the Mangateretere Stream was of high habitat value and considered that the presumption that

there might potentially be more than minor adverse effects on the aquatic ecology of the stream could not be substantiated without the existence of a pre-abstraction ecological assessment.

Mr Grace

Mr Grace advised that he was a planning and resource management consultant engaged by the Applicant to secure the renewal of resource consent for the water permit.

Mr Grace advised that he concurred with the Council Officer's Report that the resource consent application should be considered as a Discretionary Activity under Rule 55 of the Regional Resource Management Plan.

Mr Grace referred to the specific obligations and restrictions that HDC had under the Local Government Act 2002 (LGA) with respect to water supply activities. This included a requirement that it must not restrict or stop water supply except in certain prescribed circumstances. He noted that in addition to the RMA, HDC also had other legislative requirements that it needed to take into account. Mr Grace advised that he considered this a matter that the Council needed to take into account in considering the application. He also explained that HDC was taking a strategic, long-term approach to meeting its water supply requirements however this was being driven by the LGA rather than the RMA.

He explained that the Council's Long Term Council Community Plan was effectively HDC's contract with the community for the next three years in terms of its activities, programmes of works, level of service, costs and funding. Mr Grace explained that the approach adopted for the Brookvale Road bores proactively addressed these commitments. He noted that the measures for demand management and water conservation that were to be included in the Water Management Strategy proposed by the suggested conditions of consent would recognise and give effect to the requirements of the LGA and achieve the efficient and effective use of infrastructure resources. Mr Grace noted that this was also consistent with section 7(b) of the RMA which referred to the efficient use and development of natural and physical resources.

The Committee asked Mr Grace whether he was suggesting in paragraph 3.21 of his submissions that the conditions of the resource consent should be driven by the LTCCP process and not the RMA. Mr Grace advised that any decision of a strategic nature relating to the management of water was driven by the LTCCP and not the RMA, and that the measures for demand management and water conservation to be included in the Water Management Strategy proposed by the suggested condition of consent were therefore likely to a large degree to reflect the outcome of the required LTCCP process.

Mr Grace noted that as HDC did intend to formalise demand management and water conservation strategies to meet its LGA obligations, it was accepted that such conditions of consent provided a means of formally confirming this commitment as it related to the Brookvale Road bores. Mr Grace advised that he considered it was appropriate that the RMA address environmental effects associated with the take, but that the LTCCP process was the appropriate means of determining how the water was to be used by the community.

In terms of potential effects of the proposed water take on the environment, Mr Grace advised that the suggested conditions of consent would ensure that potential adverse effects on stream ecology would be minimal. This particularly applied to the requirement to prepare a Water Management Strategy which demonstrated how demand for water would be minimised at times of low flows in the Mangateretere Stream.

Mr Grace also explained that he considered stream depletion from the continued abstraction was not primarily responsible for any adverse derogation of the natural character of the Mangateretere Stream, especially when taking the findings of the ecological assessments into consideration.

Mr Grace advised that allowing for the continued abstraction of groundwater from the bores was critical for the continued efficient and effective operation of the public water supply that serviced the people of Havelock North. He noted that the provision of a reliable, safe and secure water supply was essential to the health and safety of the growing population and underpinned its social, economic and cultural wellbeing. He also noted that the continued efficient use of the existing infrastructure over the next ten years would avoid significant costs associated with the development of new infrastructure and would result in a lower financial burden for the community. He referred to the regard that the Committee was to have to the value of investment made by HDC in the Brookvale Road bores under section 104(2A) of the RMA.

In response to a question from the Committee about the potential effect of allowing the take on other water users, Mr Grace advised that he considered not allowing HDC to take water would have a much greater effect on the wider community than on individual users.

With respect to the relevant objectives and policies of the Regional Plan (including the Regional Policy Statement), Mr Grace considered that the wider intent of these would be achieved in relation to surface water quantity as, while stream depletion effects undoubtedly occurred as a result of the groundwater take, the effects of it on the stream environment were tolerable.

Mr Grace explained that he did not believe that water use efficiency and system leakage was a matter that should be considered as an environmental effect. He noted that how the water was subsequently allocated to the community in accordance with HDC's statutory obligations under the LGA did not in itself result in effects on the environment, especially as the Brookvale Road bores were only a part of the wider water supply infrastructure for the district. He considered that the actual abstraction activity was where there was potential for adverse effects on the environment to occur, not the subsequent allocation of the water to the community. He noted that HDC already had statutory obligations under the LGA to ensure the efficient and effective use of infrastructure resources. Mr Grace accepted however that water use efficiency and system leakage was an 'other matter' that the Committee could consider under section 104 (1)(c) of the RMA.

Mr Grace advised that he considered the proposal to be consistent with the purpose and principles of the RMA. He noted, in terms of the relationship of Maori and their culture and traditions and their ancestral lands, water, sites, waahi tapu, and other taonga (section 6 of the RMA), this had been addressed through pre-hearing discussions with NKII. He advised that as a result of the pre-hearing discussions NKII had confirmed that they no longer wished to be heard at the hearing. NKII had also indicated that the approach HDC was taking in relation to the resource consent renewal process had addressed to some degree their concerns in relation to the lack of consideration of cultural values and the protection of Mauri. He noted that NKII was supportive of HDC's intention to retreat from the Brookvale Road bores as a primary source, and was interested in the intended preparation of a Water Management Strategy. He advised that HDC had also made a formal commitment to continue to consult with NKII in the formulation of their demand management and water conservation strategies.

Mr Grace confirmed that HDC had only begun consulting with NKII after the application had been publicly notified, which he acknowledged was not the best approach. However, he considered that HDC had managed to achieve an acceptable outcome with respect to addressing NKII's concerns. Mr Grace tabled the letter HDC had sent NKII on 16 April 2008 confirming the discussions they had had with NKII, as well as a letter NKII had sent the Regional Council (dated 7 May 2008) stating that NKII would withdraw its opposition to the application. The details of these letters have been outlined in Section 4.1 of this decision.

Mr Grace explained that putting in place a strategy to find an alternative water supply to the Brookvale Road bores was sustainable management, and was a form of remediation for the effects the Brookvale Road take was having on the Mangateretere Stream.

Mr Gilmore

Mr Gilmore referred to the concerns raised by Mr Cooper relating to the efficiency of use and consumption of the water taken from the bores. Mr Gilmore advised that a comparison of the consumption figures with national figures was not appropriate or helpful. He explained that it was important to look at the consumption of cities with similar climatic conditions, as climate was the most appropriate factor in influencing water consumption levels. Nonetheless, he considered that that particular issue was not relevant to the decision to be made. Mr Gilmore instead referred to section 104 of the RMA which required the proposal to be assessed to determine whether it would have adverse effects on the environment that were more than minor.

Mr Gilmore advised that the potential or otherwise for water to be wasted was not an effect on the environment that needed to be considered under the RMA. He noted that to see inefficiency as a negative effect would be a misrepresentation of the RMA.

Mr Gilmore advised that the Council Officer's Report had only identified one potential effect, being the effect on the ecology of the Mangateretere Stream from stream depletion associated with the proposed take (i.e. at a peak depletion rate of 62 L/s). Mr Gilmore considered that the Officer's Report had not identified any other effects that were more than minor that the Committee needed to consider.

Mr Gilmore noted that the Applicant acknowledged that the take was affecting the level of flow in the Mangateretere Stream, but that the reduction in flow did not necessarily equate to negative effects on the stream ecology. He advised that the evidence submitted to the Committee had simply identified that there was the 'potential' for the proposed take to affect the stream ecology. Mr Gilmore advised that there were no other adverse effects that were of concern.

Mr Gilmore confirmed that the proposal was to take 200 L/s from the bores, which was to maintain the current rate of take. He advised that the Applicant recognised that there were effects from the take on the Mangateretere Stream but that HDC had obligations under the LGA 2002 and the National Drinking Water Standards for water supply that they had to meet. Mr Gilmore advised that to change the nature of the water supply would require HDC to consult with its constituents and to get their agreement, which would take significant time.

Mr Gilmore advised that the Applicant was taking steps to educate the public on how to achieve better water use efficiency. He noted that HDC was seen by other councils in New Zealand as being a leader in the approaches it was using.

With respect to considering Part 2 of the RMA Mr Gilmore noted that if the Council had the ability to balance any adverse effects against the other requirements of section 5 of the RMA. Mr Gilmore advised that if the Council did not grant consent to the take 75% of Havelock North would be without water, which would not meet the Applicant's obligation to provide for the wellbeing of people and communities under section 5 of the RMA.

Mr Gilmore also referred to the significant level of investment HDC had made in infrastructure ($2.8 million) which would be lost if consent was not granted to the proposal.

In terms of section 6(a) of the RMA, which refers to the preservation of the natural character of rivers, Mr Gilmore noted that he did not consider the Mangateretere Stream had any natural character that needed to be protected and all of the experts had agreed that it was a modified environment. Mr Gilmore did not consider there were any matters under sections 7 and 8 of the RMA that would be offended if consent was granted to the application.

Mr Gilmore advised that the recommended conditions of consent agreed to by HDC and the Council officers would remedy or mitigate any adverse effects of the proposed take. He noted that the Applicant acknowledged that it needed to retreat from the Brookvale Road bores, but that this

would take time. The Applicant was satisfied that this could be adequately dealt with by the recommended conditions of consent.

7.2 Submitters Evidence

Mr Cooper

Mr Cooper outlined for the Committee a history of the Mangateretere Stream based on his knowledge and personal experience of the area. He advised that he lived opposite Brookvale Road Well 3 and had lived by the Manageteretere Stream for 67 years.

Mr Cooper noted that before water was taken from the Brookvale Road bores the Mangateretere Stream ran at the same steady flow generally all year round. He noted that it had only been since the Havelock North Borough Council installed bore BV2 that the stream had dropped to very low levels not experienced before. He noted that since 2000 the flow had got as low as 5 L/s.

Mr Cooper explained that in November 1994, following installation of bore BV2, he had needed to frost protect but discovered that there was not enough water in the stream to prime his pump or to frost protect. As a result he put down a well (at a cost of $14,500) to secure an alternative water supply and rescinded the water right he had to irrigate from the stream. He advised that he still operated a 6 m deep bore which he used for a domestic water supply.

Mr Cooper advised that he did not consider HDC had done enough research into the ramifications and effects of its groundwater takes on the Mangateretere Stream before it installed bore BV3.

Mr Cooper referred to the late 1990s when the Mangateretere Stream stopped flowing for a time but HDC continued to pump from the wells. He advised that there was no water in the stream for the wildlife, including ducks, eels (such as Longfin eels), koura and other species. He noted that there were also no water restrictions placed on the town water users at the time and people's lawns and the parks stayed green.

With respect to water consumption, Mr Cooper advised that water consumption in Havelock North and Hastings was double that of the average New Zealand citizen, being 750 L/person/day, as opposed to 350 L/person/day for New Zealand. Mr Cooper advised that this was an issue that needed to be addressed now and not in 10 year's time. He considered that a protection plan needed to be put in place now and town people should be made aware of the effect their over-use of water was having on the environment.

Mr Cooper also questioned the reasons for measuring the flow of the Mangateretere Stream when nothing was done about the low flows.

Mr Jones

Mr Jones' submission of evidence was read by Mr Cooper on his behalf, as Mr Jones was unable to attend the hearing.

Mr Jones described how the Frogley, Cooper and Jones families had settled in the area between 1910 and 1914. He noted that some time in the 1870s some members of the Joll family assisted the Chambers family to dig the Mangateretere Stream, which he assumed had followed a natural surface flow from the springs running from Brookvale Road to Thompson Road. He noted that this would have been around the same time the Ngaruroro River changed it course from the Karamu Stream bed to the current route through Fernhill.

Mr Jones advised that local landowners had maintained the stream bed since it was dug, until the 1950s when the Hawke's Bay Catchment Board took over responsibility for cleaning the stream.

However, the stream was not well maintained until the 1970s when an improved maintenance programme was then introduced.

Mr Jones described how, between the 1920s and 1950s, his grandfather had a water wheel operating in the stream which indicated the extent of the stream flow at that time, and its reliability.

Mr Jones advised that he and Mr Cooper had supported the current water take application, subject to several conditions, but now had their doubts about giving that support. He noted that they considered their views had not been taken seriously by HDC, and HDC did not seem to recognise the effect that the bore pumping was having on the stream. He considered that the HDC take was a major cause of the degradation of the flow of the stream and that an alternative source of supply needed to be found much sooner than 10 years.

Mr Jones mentioned that the three families referred to earlier used to have rights to extract water from the stream, but those rights were now gone. He also doubted whether, if a private individual had sought consent, they would have been allowed the volume and rate of water HDC had obtained consent for.

Mr Jones considered that the flow in the stream should be measured at Thompson Road as this would give a more accurate record of the direct effect of pumping the HDC wells. He also advised that he believed there should not be an automatic restriction on new wells for landowners within 400 metres of the Stream. He considered this restriction was only in place because the HDC wells were there. He questioned why local landowners should be restricted from taking relatively small volumes when HDC took continuous large volumes of water. He did not consider this to be just.

The Committee asked whether Mr Jones would still be concerned about the health of the stream if the water was allocated to landowners instead of HDC. Mr Cooper (responding on behalf of Mr Jones) advised that he would not have the same concerns, as the landowners' takes would be intermittent and not for 24 hours, as was the case for the HDC takes.

Commissioner Scott then asked whether it would be helpful if Mr Jones and Mr Cooper were involved in an ongoing consultation process or information group. Mr Cooper confirmed that that would be helpful.

<u>B & J Frogley</u>

Mr and Mrs Frogley advised that while they acknowledged that resource consent would be granted, as HDC was still dependent on the Brookvale Road bores to supply water to Havelock North and Hastings, they did not accept that this was inevitable.

They noted that with the addition of bores BV2 and BV3 the increased water abstraction had significantly depleted the Mangateretere Stream and the life it supported. Mr and Mrs Frogley explained that as there had been no baseline study of the stream undertaken prior to the bores being installed and the water take increasing, and the current stream studies commissioned by HDC had failed to correctly assess the effects of the takes on the stream and stream life.

Mr and Mrs Frogley advised that they did not consider the water flow monitoring at Napier Road was a good indicator of what was happening at Brookvale Road because the Thompson Road and Taco Drains joined the stream further down. They noted that at Napier Road there was still water flow when at Brookvale Road the stream had ceased to flow and the stream bed was dry.

Mr and Mrs Frogley noted that when recordings had shown stream depletion, this was not being translated into any action, such as advising the public to restrict their use of water in order to reduce stress on the stream. They explained that they found this very disheartening as they could no longer irrigate, but the community was able to use 726-762 L/person/day, which was over double the national average. They did not consider it fair or equitable to allow the taking of

excessive, unrestrained amounts of water to the extent that it denied others the right to use it productively in cropping.

Mr and Mrs Frogley advised that they did not consider that the requirement of section 5 of the RMA to balance environmental protection against social and economic well-being had been met. Instead they considered that the Mangateretere Stream was being depleted for the community to be supplied with excessive amounts of water. They considered this to be contrary to Part 2 of the RMA which required sustainable management and the effects to be avoided, remedied or mitigated. They did not consider that they had equal rights with the rest of the community and that they and successive generations had lost their economic well-being as landowners, and their environment.

Mr and Mrs Frogley advised that they were cautiously encouraged by the conditions the Council's Reporting Officer was recommending for granting the resource consent to allow HDC to continue taking water from the Brookvale Road bores. However, they explained that they had hoped that an alternative water source would be required sooner if the Mangateretere Stream was to survive. They also expected the Council to require HDC to introduce a very robust education programme and to reduce the permitted water take to no more than 160 L/s.

Mr and Mrs Frogley noted that they believed there was an onus on HDC to restore to them some means of irrigating their land so that they had the same rights to "economic well-being" as the rest of the community under section 5 of the RMA.

In response to questions from the Committee, Mr and Mrs Frogley advised that they had last irrigated their land five years ago, had stopped cropping it, and had subsequently put it into pasture They advised that, because of the land's limited use, no one wanted to lease it from them. Mr and Mrs Frogley confirmed that they would find it helpful if the Council kept them informed about its management of the area.

7.3 Council's Reporting Officer's Report and Submission of Evidence

Submissions of evidence were presented by Mr Sven Exeter (Council's Reporting Officer) and Mr Brett Stansfield (Council Freshwater Scientist). Their evidence is summarised below. Comments were also made by Council's Manager Regulation, Darryl Lew, which are also summarised below.

<u>Mr Exeter</u>

Mr Exeter referred to Figure 6 on page 18 of his Officer's Report and advised that it incorrectly depicted the depletion of the Mangateretere Stream as being 20-25 L/s. He advised that 55 to 75 L/s was the rate accepted by HDC and the Council during the pre-hearing meetings.

Mr Exeter reiterated that the Applicant was to take water from three wells (Well Nos. 1329, 2106 and 4151) for a public water supply at a combined maximum rate of take of up to 200 L/s and a maximum volume of 101,281 m^3/week.

Mr Exeter advised that the key issue with the application was the effects on the Mangateretere Stream which had an allocatable volume of zero in the RRMP and was being depleted by the pumping of the Brookvale Road bores.

Mr Exeter then summarised the effects he considered the proposed take would have on the environment. These were:

- The effects of the Te Mata Aquifer sustainability from pumping the HDC Brookvale Road bores were likely to be no more than minor;

- The effects on neighbouring groundwater users which had established efficient groundwater takes was likely to be no more than minor;

- 62 L/s of water would be prevented from flowing into the Mangateretere Stream at a peak abstraction rate of 200 L/s from the three Brookvale Road bores. Given that the Mangateretere Stream had an allocatable volume of zero, the effects on the surface water were considered to be more than minor;

- HDC had been taking water for public water supply from well no. 2106 since 1985 and since 1994 the Regional Council had placed bans on the Karamu Stream to take water for a total of 361 days over a 13-14 year period. Consent holders with takes from the Karamu Stream would have already been experiencing past effects from the depleted flow from the Mangateretere Stream since HDC was granted the initial consent in 1985 to take at a rate of 100 L/s. In 2001 HDC was granted consent to take at 200 L/s hence the reduction in flow in the Karamu Stream would have increased from this point in time. The effects on downstream consent holders would therefore be minor;

- The effects of stream depletion on the in-stream ecology of the Mangateretere Stream were potentially more than minor, as had been assessed by AEL[3];

- The recreational value of the Mangateretere Stream was low and this reflected the finding of the Council's Te Karamu Report (2004);

- The lack of specific consultation by HDC with Iwi made it difficult to assess the effects on cultural and spiritual values of the Mangateretere Stream. The submissions of NKII were at odds with the Assessment of Environmental Effects (AEE) submitted with the application, and the Committee therefore needed to determine the weight to be given to the AEE and submissions;

- It was estimated from information supplied by HDC via the section 92 request for further information that the Hastings and Havelock North public consumed 726 L/person/day which is over double the national average of 350 L/person/day. This raised the issue of the inefficient use of water by Hastings and Havelock North residents and the need for consent conditions to mitigate the effects of the proposed take. HDC needed to find an alternative source for public water supply, especially given the fact that the population was expected to increase to 73,200 people by 2016 and the existing water supply sources could only support 54,000 people; and

- The positive effects outlined in the HDC application by the MWH AEE were feasible and significant. These positive effects needed to be balanced against the adverse environmental effects, as required under section 5 of the RMA.

With respect to the rate of water consumption by Hastings and Havelock North residents, Mr Exeter noted that Mr Stuijt's evidence had referred to 570-580 L/person/day, which was lower than the 726 L/person/day figure he had referred to in his Officer's Report. Mr Stuijt had suggested to the Committee that the higher figures had included industrial and commercial metered water use.

Mr Exeter concluded that the proposed take was consistent with Part 2 of the RMA with the exception of safeguarding the ecosystem of the upper and middle reaches of the Mangateretere Stream, as the effects on the in-stream ecology was potentially more than minor. He advised that while Policy 74 of the RRMP did not provide for the allocation of water from the Mangateretere Stream, the positive social and economic effects and investment in infrastructure of the public water supply were significant and needed to be taken into account and balanced with Policy 74 and Part 2 of the RMA.

[3] *Stream Depletion Effects on the Aquatic Ecology of the Mangateretere Stream and the Karamu River*. Aquatic Ecology Limited, 2004.

Mr Exeter confirmed that his recommendation to the Committee was to grant the resource consent to Hastings District Council, subject to conditions. He then made the following points in relation to the recommended consent conditions:

- There were adverse effects on the Mangateretere Stream and its ecology due to the pumping of the HDC Brookvale Road bores. The section 92 information provided by MWH on behalf of HDC suggested that the Havelock North and Hastings community used more water than the national average which raised questions about the efficiency of water use;

- The conditions, such as the requirement for HDC to develop a water management strategy, were recommended to mitigate effects on the environment and to ensure that water was used efficiently by residents, industry and other water users;

- S92 information provided by HDC suggested that population projections and demand for water outweighed the current water supply. At the pre-hearing meetings HDC reassured all submitters that the taking of water from the Brookvale Road bores would not increase over time and that the aim was to reduce the take and use the wells as a supplementary supply only; and

- Recommended Condition 8 stated that within 5 years of the issue of consent a report was to be submitted to the Council detailing alternative water sources to the Brookvale Road bores. Finding and using an alternative water source and exiting from these wells would remedy the effects on the Mangateretere Stream and its in-stream ecology and on users of the Karamu Stream who were tied to the low flow restrictions at the Floodgates site. This would also ensure a security of supply of water for the residents of Hastings and Havelock North.

Mr Exeter advised the Committee that planned 'retreat' from the Brookvale Road bores was taken into account in forming his recommendation. Mr Lew added however that finding another water supply source would not prevent HDC from seeking a renewal of the Brookvale Road consent in 10 year's time. If this was to occur, then the Council would need to decide at that time if it was appropriate to grant the consent or not.

Mr Lew

Mr Lew referred to paragraph 7.1 of Mr Grace's evidence which stated that he did not consider that water system leakage and efficiency was a matter that the Council could consider under the RMA.

Mr Lew referred the Committee to section 14 of the RMA which requires resource consent to take, use, dam or divert water. He noted that the subject application referred to the take and use of water. He advised that the 'use' aspect of the application was therefore an activity which required consent. Mr Lew explained that some regional councils separated out the take and use aspects of applications as separate consent requirements.

Mr Lew then referred to section 5 of the RMA which states that the purpose of the RMA is to promote the sustainable management of natural and physical resources. He also referred to Policy 39(a) of the RRMP which referred to the "reasonable needs and the efficiency of end use, requiring the applicant to determine how much water is needed for their activity".

Mr Lew then referred to Policy 73(i) of the RRMP which stated that on rivers (or water management zones) where minimum flows had been established, all takes for which resource consent was required would be need to cease when the river was flowing at or below the minimum flow. This policy also stated that, except where the taking had as a primary purpose the provision of drinking water to people or animals, taking could be restricted to the level necessary to maintain

human or animal welfare. In that regard Mr Lew questioned to what extent the Council could consider the need for water for amenity purposes, such as maintaining gardens and lawns.

Mr Lew referred to paragraph 3.8 of Mr Grace's evidence which stated that the actual effects of the proposed take on the existing environment were no more than minor. He advised Council staff considered that the actual effects of the take would be more than minor.

Mr Stansfield

Mr Stansfield's submission addressed the following three matters:

- Stream depletion effects on the aquatic ecology of the Mangateretere Stream and the report by AEL entitled "Steam Depletion Effects on the Aquatic Ecology of the Mangateretere Stream and the Karamu River" (2004);

- Ecological assessment of the Mangateretere Stream October 2007 report by EAM Limited; and

- Hastings District Council Brookvale Road Water Supply Resource Consent Renewal Report by MWH Limited.

Stream Depletion Effects

Mr Stansfield advised that he agreed with most findings of the AEL report, however he disagreed with the conservation status given for the Longfin eel. Mr Stansfield advised that the Longfin eel was now classified as a threatened species in a state of slow decline.

Ecological Assessment of the Mangateretere Stream

Mr Stansfield advised that he was in agreement with most findings of the ecological assessment report prepared by EAM Limited in October 2007, with the exception of some statements made on page 16 of the report.

Mr Stansfield explained that he disagreed with the report's statement that the river environment classification for the Mangateretere Stream was the same as that of the Raupare Stream. He advised that the Raupare Stream currently had a combined take of approximately 380 L/s drawn from it for a number of consent holders, therefore the stream was not suitable as a control site to assess whether the current pumping regime at Brookvale Road was affecting the diversity and abundance of aquatic species of the Mangateretere Stream.

MWH Report on the Brookvale Road Water Supply Resource Consent Renewal

Mr Stansfield referred to a number of statements made in the MWH report that he disagreed with.

The first statement Mr Stansfield referred to was in paragraph 4 of page 8 in the report which stated that AEL undertook an aquatic ecological survey of the Mangateretere Stream in 2004 which identified 15 different invertebrate taxa in the stream with good diversity and sensitive species present. Mr Stansfield disagreed with the report's conclusion that these observations were evidence that the existing operation of the Brookvale Road bores was not having a significant effect on aquatic ecosystems at its current levels of abstraction.

Mr Stansfield advised that in order to assess the effects of the current levels of abstraction on the aquatic ecology of the Mangateretere Stream the current in-stream ecology would need to be compared to the ecology of the stream if no water take was occurring. He noted that it was not possible to undertake such a study therefore the alternative was to look at how the Mangateretere Stream compared to streams of a similar type that did not have any water takes occurring in them.

Mr Stansfield advised that unfortunately the only comparison stream (warm, dry, low elevation, alluvial geology, pastoral type) for which aquatic ecology data was available was the Raupare Stream. As Mr Stansfield had already explained, the Raupare Stream was not a good control site to assess the effect of the pumping regime on the Mangateretere Stream's aquatic ecosystem.

Mr Stansfield then referred to page 9 of the MWH report which included a generalised flow habitat curve for the Mangateretere Stream at Napier Road. Mr Stansfield advised that he did not know what model had been used to produce the curve, but noted that current models in New Zealand were poor at assessing the effects of stream depletion on native fish in spring fed macrophyte dominated streams such as the Mangateretere. He noted that the effects of reduced water levels in the stream had not been reported on.

Mr Stansfield advised that if there was less water in the Mangateretere Stream it was likely that warmer water temperatures would occur during summer and diurnal fluctuations in dissolved oxygen had the potential to increase resulting in a lower sag in oxygen concentrations during the early hours of the morning. He noted that diurnal fluctuations in pH might also increase which would result in higher concentrations of unionised ammonia during specific periods of the day.

Mr Stansfield advised the Committee that a model called "DOflow" was available to model the effects of abstractions on water quality.

Mr Stansfield referred to the anecdotal evidence that had been presented by submitters in their submissions and at the pre-hearing meetings which suggested that since the water take from the Mangateretere Stream had commenced the upper reaches of the stream had become almost permanently dry during most summer months. Mr Stansfield advised that it was his opinion that although some habitat had been lost due to the abstraction, he did not believe the species richness of the aquatic community prior to abstraction would have been different. However, Mr Stansfield noted the abundance of each species could have been higher due to the greater area of available habitat.

Mr Stansfield concluded that he did not consider that any evidence submitted to date had assessed the effects of the current water abstraction on the aquatic ecology of the Mangateretere Stream. He advised that to do this would require either assessing the aquatic ecology of the Mangateretere Stream at two flow regimes (with and without abstraction) or comparing the ecology of the Mangateretere Stream to a stream of similar size, habitat characteristics and REC class that did not have any water takes from it. He noted that the work done by AEL and EAM to date had simply given a characterisation of the aquatic communities of the stream at two different times (2004 and 2007).

8. Summary of the Principal Issues

The principal issues in contention were:

(a) The inefficiency of use of water taken from the Brookvale Road bores and whether this is a matter Council can consider in assessing the proposed water take under the RMA, the RPS, and the RRMP.

(b) The depletion of surface water in the Mangateretere Stream (determined as being 62 L/s at a peak abstraction rate of 200 L/s) and the potential effects of this on the aquatic ecology of the stream and stream amenity values.

(c) The significant level of investment the Applicant has made in establishing infrastructure associated with taking water from the Brookvale Road Bores (i.e. $2.8 million).

(d) The obligations and restrictions the Applicant has under the LGA 2002 and the National Drinking Water Standards to ensure an adequate, safe and secure supply of water is available for the community.

(e) The need to retreat from the Brookvale Road bores and to find an alternative source of water.

9. Main Findings of Fact

Based on the evidence heard, the Committee considers that the following are the main facts relating to this application:

(a) The effects of the proposed take on the Te Mata Aquifer sustainability will be no more than minor, given that a significant portion of the HDC Brookvale Road abstraction is water that would otherwise discharge to surface water, and groundwater levels in the area are currently holding steady.

(b) The Brookvale Road bores have been established for more than two decades and any interference effects on other groundwater users will have become apparent over that time. The Committee heard from Mr Gyopari that the Te Mata Aquifer exhibits a very high transmissivity which enables high abstraction rates to occur without causing large aquifer draw downs. The Committee considers that any interference effects on neighbouring wells will be no more than minor and will have been occurring at least since 2001 when HDC was granted consent to take 200 L/s from the Brookvale Road bores.

(c) The evidence heard has clearly demonstrated that the groundwater take from the Brookvale Road bores causes a reduction in the flow of the Mangateretere Stream of 62 L/s when the Brookvale Road bores are pumped at a peak abstraction rate of 200 L/s.

(d) The effect of the take on downstream consent holders to take water from the Karamu Stream will be no more than minor and will not result in any significant depletion effects on the Karamu Stream that have not already been experienced since the peak abstraction rate of 200 L/s was granted to HDC for the Brookvale Road bores in 2001.

(e) The Committee considers that no factual evidence has been presented which suggests that the habitat quality of the Mangateretere Stream has degraded as a direct result of the HDC take from the Brookvale Road bores, or that it has degraded further since the take commenced. The Committee recognises that the stream and its margins have been significantly modified over a number of years and there are other activities in the area that have contributed to the degradation of the habitat quality of the stream.

(f) The effects on the Mangateretere Stream from the abstraction of groundwater are difficult to assess due to a lack of a true baseline survey of fauna and flora for the stream. The evidence submitted by Mr Stansfield and Mr Lamason has determined that, in order to assess the effects that the current levels of abstraction have on the aquatic ecology of the Mangateretere Stream, the current in-stream ecology would need to be compared to the ecology of the stream if no water take was occurring. As it is not possible to undertake such a study, the alternative would be to look at how the Mangateretere Stream compares to streams of a similar type that do not have water takes occurring in them. There are, however, no such streams in the area that can be used as study control sites.

(g) The current rate of groundwater abstraction does not appear to have further adversely affected aquatic ecosystems within the Mangateretere Stream since the survey by AEL was undertaken in 2004.

(h) The effect of the abstraction on fish species in the upper and middle reaches of the Mangateretere Stream is potentially more than minor based on the findings of the AEL (2004) report.

(i) The Applicant has committed to consult with NKII on water supply matters, particularly with regard to establishing a new water source, water conservation, and long term sustainability of water ways.

(j) NKII have withdrawn their opposition to the granting of the consent due to assurances given by the Applicant that they:

a. Will eventually cease using the Brookvale Road bores as a primary domestic water supply, but that commissioning an alternative supply and building necessary infrastructure will take up to ten years;

b. Agree that the abstraction of water from these bores has an effect on the Mangateretere Stream; and

c. Agree to a ten-year consent period.

(k) The Applicant has acknowledged that while it is fully committed to identifying and developing a new water source, and to construct new infrastructure to enable it to retreat from Brookvale Road over the next 10 years, it cannot not guarantee that retreat will be achieved within 10 years.

(l) The average and peak daily water use figures are unclear based on the evidence heard.

(m) The evidence presented by Mr Stuijt stated that water demand in Hastings and Havelock North is around 570-580 L/person/day (or 210 m^3/year) which is approximately 1.5 times the recommended New Zealand (NZ) design figure of 400 L/person/day. However this figure relates to peak water demand during winter and the Applicant was not able to provide the Committee with the summer time peak water demand rate, or information on how much water was used for various activities, such as watering outdoor areas. The Committee considers that the peak water demand rate for Hastings and Havelock North in summer is likely to be significantly higher than winter given the outdoor use of water, including irrigating parks and gardens.

(n) The Committee recognises that when considering the rate of water demand for Hastings and Havelock North it is appropriate to compare it to the water demand rates of other cities with similar climatic conditions, as opposed to comparing it to the national average. To that end Mr Stuijt was only able to provide the Committee with information on the water demand rate for Gisborne city which has no water use restrictions in place.

(o) That in allocating water from rivers, Policy 39(a) of the Regional Policy Statement enables the Council to consider the water requirement for the Applicant on the basis of its reasonable needs and the efficiency of end use. Section 7(b) in Part 2 of the RMA also requires the Council to have particular regard to the efficient use of natural and physical resources.

(p) The Committee recognises that efficient use of water can affect the amount of water taken from the Brookvale Road bores which contributes to the effects on the Mangateretere Stream, particularly in terms of the level of stream flow.

10. Relevant Statutory Provisions

10.1 Policy Statements and Plan Provisions

In considering this application, the Committee has had regard to the matters outlined in Section 104 of the Act. In particular, the Committee has had regard to the relevant provisions of the following planning documents:

(i) The Hawke's Bay Regional Resource Management Plan (RRMP), which includes the Regional Policy Statement (RPS).

8.2 Part II Matters

In considering this application, the Committee has taken into account the relevant principles outlined in Sections 6, 7 and 8 of the Act as well as the overall the purpose of the Act as presented in Section 5.

9. Decision

Pursuant to Section 104B of the Act, the Committee **grants** consent subject to conditions.

10. Reasons for the Decision

The Committee considers that the proposed activity can be undertaken in a manner that is consistent with the relevant objectives and policies of the Regional Policy Statement and the Regional Resource Management Plan (August 2006). The Committee also considers that the proposed activity is consistent with the purpose of the RMA, as outlined in section 5 of the Act, including enabling people and communities to provide for their health and safety, and recognises the value of the investment of HDC in the infrastructure associated with the Brookvale Road bores.

The Committee considers that the consent conditions imposed on the consent holder will mitigate any adverse effects on the environment and will address the concerns of submitters.

11. Commentary on Conditions of Consent

Conditions 1-3 set a maximum combined rate and volume of take from the Brookvale Road wells, and a maximum rate of take from each of the wells, which will ensure that the scale of the activity, and therefore its potential effects, are limited to what was applied for and assessed in determining the application.

Conditions 4-6 require HDC to submit to Council a 'Water and Conservation Management Strategy' which demonstrates how HDC will achieve an efficient use of water and will thereby minimise the environmental effects of the water take on the Mangateretere Stream, particularly at times of low flow. This strategy must include a commitment to the implementation of a range of water demand management and water conservation measures that will be used to deal with any non-compliance with water use restrictions, and provide details of a public education programme to be implemented. These conditions will ensure that the scale of the activity, and therefore its potential effects, are limited to what was applied for and assessed in determining the application. The conditions also promote efficiency of use which is consistent with Policy 39a of the RRMP.

Conditions 7 requires HDC to submit a report to Council which details how the demand management and water conservation measures set out in the Water and Conservation Management Strategy required by Condition 4 have been implemented over the last 12 months.

Condition 8 requires HDC to provide Council with an annual summary report by the 30 June each year which includes information on the rate and use of water taken, including the instantaneous rate of take, 7-day moving totals, and peak daily usage. This will ensure the volumes of water taken are recorded and comply with conditions 1-3.

Condition 9 requires HDC to submit a report to Council within 5 years of the issue of the consent providing up to date population projections for the community being supplied water by the consent and details on progress made in identifying alternative public water sources to the Brookvale Road wells. The condition also requires HDC to provide a copy of the report to each of the persons who made submissions on the resource consent application. This will ensure that the scale of the activity, and therefore its potential effects, are limited to what was applied for and assessed in determining the application.

Conditions 10–16 require the installation of water measuring devices. This is consistent with Policy 30 of the RRMP and the draft 'national environmental standard (NES) on ecological flows and water levels[4]. The water measuring devices will enable the Council to determine compliance with conditions 1-3.

Conditions 17-20 specify what information is to be recorded from the water measuring devices and made available to Council. This will enable Council to determine compliance with conditions 1-3. It is noted that daily readings would be required to determine compliance with condition 3, however a 7-day interval will give a good indication of the volume of water taken and will be significantly less onerous in terms of data collection and management.

Condition 21 requires all works and structures relating to the consent to be designed and constructed to conform to the best engineering practices and at all times maintained to a safe and serviceable standard.

12. Duration of Consent

The Committee considers that a consent duration period of 10 years, expiring on 31 May 2018, is appropriate for the following reasons:

- The effects of the abstraction on the Te Mata Aquifer sustainability will be no more than minor;
- The Mangateretere Stream is not a highly significant stream that supports a highly significant ecosystem;
- The abstraction is having an effect on the aquatic ecology and flow regime of the Mangateretere Stream and therefore a substantially longer term duration is not considered appropriate;
- There does not appear to have been any continued degradation of the aquatic ecosystems within the Mangateretere Stream associated with the abstraction; and
- The 10 year term will allow HDC time to investigate and develop a new water source that will enable it to eventually cease taking water from the Mangateretere Stream as intended by Policy 74 of the RRMP and the side agreement HDC has with NKII, or conversely for the

[4] Note that the draft NES has no legal standing as it has not yet been 'ratified'.

Council to undertake further research into the minimum flow and allocatable volume for the Mangateretere Stream.

A 10-year consent duration period is also consistent with the period requested by the Applicant.

Issued this 20th day of August 2008

Commissioner C Scott
Chair of Hearings Committee

Commissioner E MacGregor

Commissioner G Ryder

APPENDIX 1 LETTER FROM HASTINGS DISTRICT COUNCIL TO NGATI KAHUNGUNU IWI INCORPORATED

HASTINGS DISTRICT COUNCIL

HASTINGS, THE LIFESTYLE OF CHOICE, A PLACE OR OPPORTUNITIES

If calling ask for Dylan Stuijt

File Ref WAT-20-10-08-279

16 April 2008

Ngati Kahungunu Iwi Incorporated
Attn: Morry Black
Resource Management Advisor
PO Box 2406
Hastings

Dear Morry

WP070080T – Brookvale Road Water Supply Bores

Thank you for taking time to meet with us on behalf of Ngati Kahungunu IWI.

To confirm verbal discussions, I would like to expand on, and reinforce the points made by Mr Brett Chapman from the Hastings District Council (HDC). Copy attached. It is the HDC's intention to strategically withdraw from the Brookvale bores as a primary water source. The HDC has accepted there is a baseline effect on the Mangateretere Stream linked to the Brookvale Road bores, and does not wish to continue operating this as a primary source going into the future.

To enable a new source to be identified, developed and new infrastructure constructed, the HDC needs a period of approximately 10 years to achieve this. Therefore as discussed, our consent application is for a 10 year consent period only, which also maintains the status quo in terms of the existing consent, rather than increasing the take as originally proposed.

As agreed at our meeting, the HDC confirms its commitment to consult with Iwi on water supply matters. Particularly in regard to establishing a new bore field that will sustain the needs of our growing community. Input in regard to water conservation and long term sustainability of our water ways would also be sought from local Iwi and the wider community.

As mentioned I hope we have alleviated Iwi's initial concerns in regard to our application, and I'm hopeful this will enable Iwi to withdraw their objection in regard to this application.

Yours sincerely

Dylan Stuijt
Water Supply Manager
dylanjs@hdc.govt.nz

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APPENDIX 2 LETTER FROM NGATI KAHUNGUNU IWI INCORPORATED TO HAWKE'S BAY REGIONAL COUNCIL

07 May 2008

The Chairperson
Hearings Committee
Hawke's Bay Regional Council
Private Bag 6006
NAPIER

Re: Hastings District Council applications for resource consent to abstract water at Brookvale Road, Havelock North.

We made a submission in opposition to these applications. We ask that the committee consider the following in reaching their decisions.

We have agreed that we will withdraw our opposition to these consents being granted due to the Hastings District Council's assurances that they: -

1. Will eventually cease using the Brookvale Road bores as a primary domestic water supply, but that commissioning an alternative supply and building necessary infrastructure will take up to ten years.
2. Agree that the abstraction of water from these bores has an effect on the Mangateretere Stream
3. Agree to a ten-year consent period

I have attached a letter as confirmation of their intentions. In light of these assurances, we no longer wish to be heard at the hearing.

Yours faithfully

_____
Morry Black

For

Ngati Kahungunu Iwi Inc
P O Box 2406
HASTINGS