

NORTHLAND REGIONAL COUNCIL

Report and Decision of the Council, through its Hearings Committee meeting held in the Conference Room, Copthorne Hotel & Resort Hokianga on Monday 24 September 2007 and Thursday 13 August 2009, commencing at 10.00 a.m.

The Hearings Committee ("the Committee") of the Northland Regional Council was convened to hear resource consent applications lodged by Far North District Council relating to the Public Water Supply for the Opononi/Omapere communities, adjacent to the Hokianga Harbour. The applications, made in accordance with the Resource Management Act 1991 ("the Act"), were lodged with the Northland Regional Council and referenced as (NRC Application Nos. CON20040436901 and 20040735601).

- PRESENT:** **Hearings Committee**
Cr L Hill
Mr J L Peters
- APPLICANT:** **Far North District Council**
Mr J Dawson (24/9/07)
Ms P Fordyce (13/8/09)
Mr S Kreegher, Environmental Engineer
Mr L Fog, Civil Engineer
Mr M Poynter, Consultant Ecologist
- CONSENT AUTHORITY:** **Northland Regional Council**
Ms A Stride
- SUBMITTERS:** **Director General of Conservation**
Ms T Routley, Resource Management Planner (24/9/07)
Mr A Riddell, Resource Management Planner (13/8/09)
- Pakanae Hapu Management Committee**
Ms K Taurau
Mr A Hessel
Mr J Klaricich
Mrs E Naera
Ms C Turner
Ms M Te Tai
- Mr L Toorenburg and Neighbours**
Mr W Ngakuru
Mr G Nichols
Mr J Newman
- Mr H & Mrs M Mitt
Mr J Klaricich on behalf of Mrs K Toi
- IN ATTENDANCE:** Mr D H Alderton, Committee Secretary (24/9/07)
Ms K Nahi Taiha, Committee Secretary (13/8/09)

1. DESCRIPTION OF THE PROPOSED ACTIVITY

The consent applications are related to the public water supply that currently services the settlements of Opononi and Omapere. The applications for water takes and permits for associated structures are all for replacement consents: to take water from the Waiotemarama Stream, at Waiotemarama, approximately 4 kilometres (km) east of Omapere, which discharges to the Waimamaku River; and to take water from the Waiarohia Stream, which lies in Opononi, and discharges to the Hokianga Harbour. The requested volume of the take from the Waiotemarama Stream remains the same as currently consented; The requested volume from the Waiarohia Stream has increased from the current 182 cubic metres per day (m³/day) to 900 m³/day. The consents also include permits to continue use of the associated weir and dam structures, and also for maintenance activities such as gravel extraction, associated with the Waiarohia Dam.

2. REGIONAL PLAN RULE(S) AFFECTED

The water take activities in both the Waiarohia and Waiotemarama Streams do not meet the criteria of the permitted activity rules in Section 24 of the Regional Water and Soil Plan for Northland (RWSP) and the activities are therefore classified as being discretionary in accordance with Rule 24.3.3 of the RWSP.

The Waiotemarama Stream weir/intake structure has a design that permits a minimum flow of water of approximately 10 litres per second (L/s) past the structure as continuation flow, which is less than the estimated design minimum flow for the stream; and the proposed continuation flow beyond the Waiarohia Dam is also below the design minimum flow for the stream. Therefore the Waiotemarama intake/weir structure and the Waiarohia Dam structure are not compliant with the criteria of Rule 28.01.01(i) of the RWSP (including Plan Change 1). Therefore use of both the Waiotemarama weir/intake structure and the Waiarohia Dam Structure are considered to be controlled activities, in accordance with Rule 28.02.01, and therefore the damming, diversion and discharge of water associated with the respective structures is also a controlled activity in accordance with Rule 28.02.02 of the RWSP.

The proposed gravel extraction is not compliant with the criteria of Rule 31.01.02 (i) of the RWSP, therefore the activity is discretionary in accordance with Rule 31.3.1 of the RWSP. The deposition of gravel and the discharge of contaminants associated with that activity are discretionary activities in accordance with Rule 31.03.01 of the Regional Water and Soil Plan. The clearance of riparian vegetation for access to the Waiarohia Stream falls outside the scope of permitted activity rules of Section 34.1 of the Regional Water and Soil Plan, and is therefore discretionary in accordance with Rule 34.03.01.

3. NOTIFICATION AND SUBMISSIONS RECEIVED

These applications were publicly notified on 23 June 2004 pursuant to Section 93 of the Act, with the submission period closing on 21 July 2004. Six submissions were received for the Waiotemarama Consents, and four submissions were received for the Waiarohia consents.

The submission of T A Reuben on the Waioitemarama applications was received a day late (on 22 July 2004), but was reportedly posted to the Regional Council on 19 July 2004. The applicant has stated they are in support of acceptance of the submission (pursuant to the waiver provisions of Section 37 of the RMA) as long as the submission was posted prior to the closing date for submissions (21 July 2004).

A summary of the written submissions received and the main issues raised is provided in Table 1 below.

Please note, the provisions of the Regional Water and Soil Plan have changed since receipt and notification of this application with the implementation of Plan Change 1 on 30 August 2007, and therefore the specific consents associated with the weir and dam structures have also changed (ie. additional consents are required for the weir and dam structures and also to dam, divert and discharge water from behind them). The subtypes for the activities have been changed accordingly to be consistent with the Plan Change 1 of the Regional Water and Soil Plan, however, as the changes did not materially affect the interpretation of the activity, it was not considered necessary to re-advertise the application.

TABLE 1: SUMMARY TABLE OF SUBMISSIONS

4369 – Waiootemarama Stream

7356 – Waiarohia Stream

Date Received	Name of Submitter	Consent	Oppose/Support	Wish to be Heard	Issues of Concern	Relief Sought
16/07/04	Pakanae Hapu Management Committee	Both	Oppose	Yes	<ul style="list-style-type: none"> ▪ Environmental effects on surrounding areas. ▪ No consultation with Maori Land Owners re compensation/treaty claims pending. ▪ Why is there such a large increase in water take volume (for 7356)? 	<ul style="list-style-type: none"> ▪ Refuse consent.
21/07/04	L Toorenburg and on behalf of neighbours	Both	Oppose	Yes	<ul style="list-style-type: none"> ▪ Current 10 L/s continuation flow caused adverse effects on downstream water quality and quantity for other users. ▪ Past mismanagement by FNDC including illegal takes. ▪ Mistrust of Council to keep promises. ▪ Lack of consultation. ▪ Non-compliance with consent conditions. ▪ Non-redepositing shingle in stream as promised. 	<ul style="list-style-type: none"> ▪ Refuse consent in its current form. But if granted, would like: <ul style="list-style-type: none"> - More supervision of Council water use - Increased min flow - Maintain road - Consultation - Redeposit shingle in stream
21/07/04	Department of Conservation	Both	Oppose	Yes	<ul style="list-style-type: none"> ▪ Not consistent with regional policy, esp. rainwater storage and alternative to run-of-stream take. ▪ Alternatives not adequately addressed and assessment of BPO. ▪ Want confirmation of previously agreed riparian margin enhancement (7356). ▪ Want fish surveys to enable adequate assessment of effects. 	<ul style="list-style-type: none"> ▪ Refuse consent. ▪ Relief sought may change subject to further consultation, to its satisfaction, that the issues of concern have been adequately addressed.
21/07/04	H & M Mitt	4369	Oppose	Yes	<ul style="list-style-type: none"> ▪ Continual non-compliance with existing and past consents, namely: took more water than allowed, did not look for alternatives, inadequate maintenance of surrounds. 	<ul style="list-style-type: none"> ▪ Refuse consent.
19/07/04	Prince Reuben Whanau Trust	4369	Oppose	No	<ul style="list-style-type: none"> ▪ Volume unsustainable during summer low flows. ▪ Water quality has deteriorated since take. ▪ No water for downstream users. ▪ Opononi/Omapere should install water tanks. 	<ul style="list-style-type: none"> ▪ Refuse consent.

Date Received	Name of Submitter	Consent	Oppose/Support	Wish to be Heard	Issues of Concern	Relief Sought
22/07/04	T A Reuben	4369	Oppose	NI	<ul style="list-style-type: none"> ▪ Waitemarama Stream a Taonga. ▪ Originally short term option, but now permanent. ▪ Increasing volumes of abstraction over time causes adverse effects on stream. ▪ Very low flows during peak demand. ▪ Think the Council should look for a large reliable source of water ie. Waimamaku River. 	<ul style="list-style-type: none"> ▪ Refuse consent.
21/07/04	K Toi	7356	Oppose	Yes	<ul style="list-style-type: none"> ▪ Only domestic households situated below the dam. ▪ Concerns for family and property safety in the event of a major catastrophe and flooding, namely: ▪ Have had problems with flooding and erosion. ▪ Problems with sewage pipeline over stream. 	<ul style="list-style-type: none"> ▪ Refuse consent in its current form. But will support if the Council will: Provide a gamian basket wall on their side of the stream, and The sewage pipe is buried.

4. PROCEDURAL MATTERS

A late submission from T A Reuben was received one day after submissions closed. The Hearings Committee made the decision during the hearing that the Regional Council, under Section 37 of the Resource Management Act, accepts the late submission of T A Reuben as no new issues were raised by their submission and therefore it does not prejudice the Applicant, and the Applicant had indicated their support of the acceptance of the submission.

During the submission by the Pakanae Hapu Management Committee, the legal counsel for the Committee, Katherine Taurau, requested a Cultural Effects Assessment (CEA) be undertaken for the activities. The Hearings Committee briefly adjourned the hearing to make a determination on the request, and upon reconvening the hearing, the applicant offered to undertake this CEA. It was estimated it would take three weeks to complete. The Hearings Committee accepted the applicant's offer, pursuant to Section 41C of the RMA, and decided to continue to hear those submissions that did not rely on the provision of the CEA (being all submitters except the Pakanae Hapu Management Committee and the Department of Conservation), and then adjourned the hearing pending receipt of the CEA. The Department of Conservation requested to delay the provision of their submission, as they considered that the CEA would have particular implications for their submission with the Department being a Treaty Partner. The Committee approved the requested delay. The Hearings Committee stated that the CEA would be circulated to all, along with the Staff Officer's written reply to the Applicant's evidence, submissions presented to date and the CEA, at least five days prior to the reconvened hearing. The Committee stated that the Staff Officer's reply and the CEA would be taken as read at the reconvened hearing.

The CEA was not received until June 2009. A copy of the CEA was circulated to the Committee, the Applicant and all submitters in accordance with Section 41C(5) of the RMA. A copy of the Staff Officer's reply to the Applicant's evidence and submissions heard in the first part of the hearing was circulated five days prior to the reconvened hearing in accordance with Section 42A(3) of the RMA. The hearing was reconvened on 13 August 2009 at which time the submissions of the Pakanae Hapu Management Committee and the Department of Conservation were heard, along with a brief reply from the Staff Officer to those submissions, then the applicant's reply.

The Applicant's legal counsel at the reconvened hearing, Ms P Fordyce, objected to the Department of Conservation's provision of their entire submission as she was under the impression that only those parts of the submission pertaining to the CEA would be provided at the reconvened hearing. The Department's representative at the reconvened hearing, Mr Andrew Riddell stated that he was told by Ms Trish Routley, who was the Department's representative at the first part of the hearing, that the entire submission was requested, and approved, to be provided after receipt of the CEA. The Hearing's Committee stated that they would check the audio recording of the hearing to confirm what had been approved, and in the meantime hear the Department's submission and if Ms Fordyce was proved correct, then they would deal with the submission appropriately at that time. The audio was later checked and it was determined that the Committee had approved that the entire submission of the Department was to be delayed pending the CIA as Mr Riddell had stated.

During the time between adjournment of the first part of the hearing in September 2007 and the reconvened hearing in August 2008, the Te Roroa Claims Settlement Act 2008 was enacted, which includes a cultural redress property adjacent to the Waitemarama Stream downstream of the applicant's take point. At the time of receipt of these applications in 2004, as this land was only identified as reserve land at that time, Te Roroa were not identified as downstream landowners and potentially affected parties pursuant to Section 94B of the RMA, and were therefore not specifically notified of the applications. However, Te Roroa provided a submission for the application by the FNDC to take water from the Waimamaku River, which was received and notified in 2006, and was originally to be heard along with these consent applications for the Opononi/Omapere Public Water Supply at this hearing. However, the Waimamaku application was withdrawn in September 2007, three weeks prior to the first part of this hearing, thereby removing the opportunity for Te Roroa to participate. Therefore, in accordance with Section 94B(2) of the RMA, pursuant to Te Roroa Claims Settlement Act 2008, Te Roroa were invited to speak at the reconvened hearing on 13 August 2009. However, Te Roroa did not respond directly to the Regional Council regarding that offer, and did not attend the reconvened hearing. However, it is noted that Mr Will Ngakuru who spoke on the first day of the hearing in September 2007 in support of Mr Toorenburg's submission, also identified himself as being a trustee with the Te Roroa Whata Ora Trust, and also spoke, in part, on their behalf.

After hearing the remaining submitters and the Applicant's reply, the Hearings Committee Chairperson adjourned the hearing at 11.57 a.m. on 13 August 2009. After assessing the adequacy of the information presented, the Hearings Committee determined that no further information was required to enable a decision to be properly made, and the Hearings Committee Chairperson closed the hearing on 14 August 2009.

5. EVIDENCE HEARD

The Committee heard evidence from the applicant, expert witnesses, submitters, and the Council's reporting officer. The following is a summary of the evidence heard at the hearing.

5.1 Applicant's Evidence

Mr J Dawson – Legal Counsel

Mr Dawson in his opening submission gave a brief background and outline of the application stating that the current supply is inadequate in meeting the summer demand and that since 1999 water restrictions have been in place for five years out of the seven up to the date of the first part of the hearing. The Applicant was seeking that the maximum daily take for both the Waitemarama and the Waiarohia Stream takes be 900 m³, the same as the current take from the Waitemarama. Commenting on the Officer's Report Mr Dawson said that her recommended maximum daily take from the Waitemarama of 750 m³ and also the increase in the maximum daily take from the Waiarohia from 183 m³ to 750 m³, falls short of the 900 m³ per day applied for. He said that in the Applicants view the volumes applied for are justified and necessary. Mr Dawson also noted that a limitation on both takes was proposed so that a combined maximum of 1,500 m³ per day from both takes was also imposed.

Commenting on the Far North District Council's history of compliance with regards to the two water takes Mr Dawson stated that past history of compliance and suggestions of breach are irrelevant to the Committees required consideration because the Committee is obliged to assume that any consent conditions will be complied with. Mr Dawson also presented suggested changes to the proposed conditions of consent.

Ms P Fordyce – Counsel Far North District Council – Right of Reply

Ms Fordyce in her right of reply summarised in her opinion what the main issues relating to the application were and responded with her findings:

- (a) The mean annual flow of the Waitotemarama Stream and what should be the Design Minimum Flow be set at after taking of water.

Response: The definition and methods outlined in the RWSP for Northland for the Waitotemarama Stream the Mean Annual Low Flow of the stream is 13.8 L/s and the Design minimum Flow should be set at 10 L/s.

- (b) Method of extraction from the Waitotemarama Stream and the monitoring of that extraction.

Response: The intake structure automatically allows the 10 L/s continuation flow to bypass the intake structure and the Waitotemarama Stream cannot be reduced below this level.

- (c) The volume of the extraction that should be allowed

Response: The most critical issue is how much water remains in the Waitotemarama Stream after taking (the DMF) not the amount of water taken and stated the FNDC has agreed to limit the amount of water taken (a daily average of 550 m³/day per calendar month) and stated that the maximum one day take should remain as in the current consent of 900 m³ per day.

- (d) The ecological implications.

Response: The NRC Policy 9.5.4 and 9.5.5 describe only the upper portion of the Waitotemarama Stream as being of high ecological value. She considered that the investigations conducted by Mr Poynter were an accurate and adequate assessment of the effects of the activities.

- (e) FNDC compliance with current consent.

Response: The evidence indicates that the level of non-compliance of these consents over a period of 20 years has been minimal, enforcement action has been taken only once and that had been withdrawn by the NRC as it was defective and /or without merit.

- (f) Investigation of alternatives.

Response: FNDC has adequately assessed the alternatives and the "best practical option".

- (g) Importance/relevance of security of supply.

Response: It is crucial that the FNDC can continue to supply potable water to the community of Opononi/ Omapere.

- (h) Leak detection measures.

Response: FNDC has a water conservation strategy and leak detection strategy in place that was agreed to and accepted by NRC in line with the requirements of the previous consent. Changes to conditions of consent regarding leak detection were proposed.

- (i) What compliance monitoring should be required of the consent.

Response: That the level of reporting and investigations in the proposed conditions were excessive and requested changes.

- (j) Environmental quality Monitoring.

Response: The monitoring programme included Schedule A should be removed.

- (k) The continuation below the Waiarohia Dam – comments made by submitters that the water take causes the stream to dry up.

Response: Condition 3 of the proposed consent for the Waiarohia Stream requires a continuation flow of 0.3 L/s.

Ms Fordyce provided a number of suggested changes to the consent conditions consistent with the above responses.

Stefan Kreegher – Environmental Engineer

Mr Kreegher stated that the critical issue is not the amount of water which is taken but the amount of water that is left behind ie. the continuation flow which is set in order to provide life sustaining capacity to the stream ecology. He stated that the ecological assessment provided by Mr Poynter demonstrates that there are no adverse effects on the Waitotemarama Stream of maintaining the continuation flow at the current 10 L/s.

Mr Kreegher discussed the method of assessment of the Mean Annual Low Flow he employed. He stated that the alternative methods of assessing the MALF as discussed in the Consent Officer's report, including the NIWA assessment of the seven day MALF, are not relevant because he considered that the RWSP requires only the one day MALF as calculated according to Appendix 11 of the plan should be considered.

Mr Kreegher stated that the continuation flow for the renewed consent should remain the same to enable security of supply. Mr Kreegher provided hypothetical examples where, under differing flow conditions, if the continuation flow is raised to 14 L/s there would be insufficient water volume available to service the water supply. He further stated that the 550 m³ daily average in the Consent Officer's proposed conditions of consent is acceptable to the applicant, but that the proposed maximum volume of 750 m³/day is inadequate to provide security of supply. Mr Kreegher provided information to justify the requested 900 m³/day, and an 11.4 L/s abstraction rate (being 900 m³/day abstracted over 22 hours).

Mr Kreegher discussed the nature of consultation conducted by the applicant, including the consultation conducted for an additional consent application to take water from the Waimamaku River for this water supply, which has subsequently been withdrawn. In addition, Mr Kreegher discussed the delays in the timeframes associated with the processing of the application associated with the provision of extra information for the application as requested by the Northland Regional Council. Mr Kreegher provided a summary of the issues raised in submissions on

the application and considered that the consent conditions, as amended by the changes requested by the applicant, would resolve these submitters issues.

Lars Fog – Civil Engineer

Mr Fog's evidence addressed:

(a) **Issues of Compliance**

Mr Fog stated that the FNDC disputes assertions in the Consent Officer's report of compliance issues associated with this consent, and notes that only one abatement notice has been issued, and subsequently withdrawn, during the term of the current consent.

(b) **Proposed Continuation Flow**

Mr Fog considered that the Consent Officer's proposed condition to increase the continuation flow to 14 L/s was unsustainable. He stated that the security of supply with the current 10 L/s continuation flow is already compromised and would be made worse with the increase of the continuation flow to 14 L/s. He considered that the abstraction would have to cease every year and the townships would run out of water. He stated that Mr Poynter's evidence concludes that there is no more than minor effects of maintaining the flow at 10 L/s, and there is no great benefit of increasing it to 14 L/s.

(c) **Alternative Source Investigations**

Mr Fog stated that there are few options for water supply to Opononi and Omapere and the Far North District Council has undertaken detailed investigations into these alternatives over a period of 10 years. He considered the only options technically available at present are the taking water from the Waimamaku River or the Waitotemarama Stream.

(d) **Proposed Water Conservation Strategy and Leak Detection**

Mr Fog submitted that the FNDC currently has in place a water conservation strategy and leak detection programme for the Opononi-Omapere Water Supply system and he outlined results of checks undertaken in 2006. Mr Fog considered that proposed conditions regarding leak detection were impractical, unnecessary, inappropriate and costly. In addition he considered that some of the measures in the water shortage contingency plan condition were not always achievable. Therefore revised conditions were suggested.

(e) **Reporting Frequency and Collection of Data**

Mr Fog considered that the degree of reporting outlined in the Officer's recommended conditions of consent was far too onerous and indicated conditions that he recommended be deleted and suggested conditions that he felt would be more appropriate.

Mark Poynter – Consultant Ecologist

Mr Poynter reported to the Committee his findings in regard to the effects of the activities on the ecology of Waitotemarama and the Waiarohia streams if consent is granted. Mr Poynter outlined the ecological assessment he had undertaken to determine the effects of the activities on the respective streams and provided a description of the Waitotemarama stream and the flows occurring on the date of

sampling in March 2006, and also provided some representative photographs of the Waitemarama stream.

Waitemarama Stream

The conclusions and main findings of Mr Poynter's assessment of the Waitemarama are summarised as follows:

- Mr Poynter stated that the MALF is the conservative default flow that protects the ecology and water quality, and is for all practical purposes a “no concern level”. Mr Poynter stated that his assessment is based on the assumption that the applicant's engineer's assessment of the MALF (13.8 L/s) is the best estimate of the MALF.
- Mr Poynter's assessment of effects was based on the effect of the reduction of the flows from the assumed 13.8 L/s MALF to the 10 L/s continuation flow requested by the applicant.
- Conditions on the day of water quality sampling (March 2006) were close to assumed MALF conditions
- In Mr Poynter's opinion, the length of stream considered to be affected by the applicant's take extends to approximately 2 km downstream of the applicant's take, being the length of stream by which the absolute volume of the take on the day of sampling was replaced by inflows from tributaries.
- Water quality in the upper 2 km of the stream is very good, facilitated by good riparian shading.
- Mr Poynter considered that the reduction of wetted surface from a 13.8 L/s to a 10 L/s flow would be minor and ecologically insignificant.
- Mr Poynter described how streams in general are subject to natural fluctuation in flows and that biota had adapted to this variability, and that invertebrate communities have the ability to re-establish after extreme events.
- Mr Poynter stated that peak migration of native fish occurs during periods of relatively high flows rather than during summer low flow periods.
- Mr Poynter considered that the risk for extended periods at the MALF over a large part of the year is mitigated by the fact that the take is not large, and the take rate cannot be varied to adjust for flow fluctuations. However, he did acknowledge that in the drier months of the year there is the potential for flows below the take point to be maintained at the continuation flow for extended periods. Mr Poynter suggested that mitigating factors for this occurrence may be to pulse flows above the continuation flow during the normal daily cycle of operation of the system, and the fact that the highest demand for water (early January) does not coincide with the lowest flow period (March). In addition, inflows from downstream tributaries would be above design minimum levels.
- Mr Poynter concluded that the ecological risk of a 10 L/s continuation flow versus a 13.8 L/s continuation flow is small and the risk can be weighed against the non ecological benefits in terms of the FNDC's obligations to provide a water supply.
- Mr Poynter provided an addendum to his evidence regarding the effects on fish, which concluded that:
 - as the intake structure was designed to be “fish friendly”, it was assumed that the fish community in the stream is of high ecological value;

- differences in fish community between the upper and lower Waitemarama reflect the different habitat structure associated with the more open aspect of the lower sections relative to the more shading in the upper sections;
- the water quality maybe have some bearing on the fish community with the lower stream appearing to have a relatively high pH; there is good oxygenation of the river, so oxygen is not likely to be a limiting influence;
- the temperature may be an influencing factor at times of severe low flow and high ambient daytime temperature, but he considered that given the structure of the stream it seems most unlikely that temperatures would reach levels that are lethal or stressful to fish within the flow range under which the abstraction occurs.

Mr Poynter made comments on the Staff Officer's assessment and recommended conditions. He stated that one of the main differences is the respective assessments of the effects of the take on the lower Waitemarama Stream, and he did not agree with the Staff Officer's assessment of significant risk.

Mr Poynter commented that while supporting the rationale behind the proposed raising of the continuation flow. As he considered that the ecological risk of a 10 L/s continuation flow is small, in the event that no alternative supply is obtained, he stated that the Hearings Committee could consider a 10 L/s continuation flow without there being any serious risk of adverse ecological effects.

Mr Poynter considered that continuous year round measurement of the flows was not justified, but that some assessment of the flows during the times of the year when the natural flows are lower was appropriate.

Mr Poynter stated that there was little justification in any further monitoring at the lower Waitemarama sampling site, as proposed in the monitoring schedule. In addition, given the water quality data already obtained, he did not consider that further water quality monitoring was justified in the context of his predicted very minor scale of any such effects. He also considered the proposed invertebrate monitoring unnecessary for the same reasons. At most he considered that summer and winter invertebrate monitoring at the sites immediately above and below the intake site, along with some in-situ water quality measurements at the same sites is all that could be required, although even this is not considered ecologically justified.

Waiarohia Stream

Mr Poynter had the following comments and conclusions with regards to the Waiarohia Stream assessment:

- Mr Poynter said he undertook a field survey of the Waiarohia in March 2004 targeting macroinvertebrates, and made observations of the catchment, the dam and the stream below the dam. He stated that above the dam the survey of the macroinvertebrates indicated good water quality, however, downstream of the dam there was insufficient flow to sample invertebrates at the time of the survey. Habitat conditions between the dam and the harbour were somewhat modified but indicative of a reasonable habitat. He said he suspected that the dam will have severely limited and modified the native fish community upstream; eels may still get past this structure but unlikely that other species do. He concluded that flows downstream of the structure are likely at times to

be insufficient to sustain a healthy ecology in the short stretch between the dam and the harbour.

- In commenting on the staff report in relation to the Waiarohia he noted there was no requirement for any fish pass in the proposed conditions and, based on his knowledge of fish pass design, concluded that, in his opinion, it would be very difficult to design and manage an effective fish pass for this structure. However, he believed in the long-term, in the event that the dam is no longer actively used, consideration should be given to its removal or to the re-establishment of fish passage past the structure.

5.2 Submitters Evidence

L Toorenburg (on behalf of neighbours)

Mr Toorenburg's submission was on behalf of himself and his neighbours, some of whom were present at the hearing and who also spoke in support of this submission.

Time Delays

Mr Toorenburg expressed concern re the delays associated with the processing of the consent and the hearing, and questioned the legality of the proceedings with respect to the timeframes required by the RMA and did not agree with the proposed 20 year term for the consent, as the previous consents had been much shorter due to the ecological sensitivity of the Waitotemarama Stream.

Water Flows

Mr Toorenburg described his long history associated with, and knowledge of, the Opononi-Omapere Public Water Supply issues and the two water take activities. He described how the previous consents were intended to be the lead in time for the applicant before raising the flow to the MALF at this consent renewal, and how the FNDC staff had stated they were not concerned with the increased flow requirements as the Council was looking at various methods of reducing consumption, leak detection, increasing storage, and other alternatives.

Mr Toorenburg also stated how flow monitoring was a requirement of previous consents that has not been complied with by the applicant, leading to less data upon which to base the MALF calculation. He also provided photographs of the blocking of the weir structure.

Mr Toorenburg stated that the Waitotemarama Stream is recognised as being ecologically valuable and sensitive.

Other concerns regarding the current applications included the following:

- Restrictions of land use on property owners, which made the Waitotemarama Community effectively subsidising the Opononi/Omapere development;
- No compensation for Waitotemarama Community – suggestions included rates rebates, road maintenance;
- Lack of progress on investigation/implementation of alternative supply source;
- Damage to roading and land adjacent to the stream due to erosion from reduced armouring of the stream resultant from the weir installation;

- The FNDC has reneged on their original assurance that the Waitemarama was a back up supply for the Waiarohia, with ultimate aim to extend to the Waimamaku River as a source, but now made the Waitemarama Stream has been made the permanent primary source for the water supply.

Mr Toorenburg expressed concern regarding compliance and monitoring issues associated with the previous consents.

Mr Toorenburg highlighted the apparent growth of Opononi/Omapere, which has led to stress on the water supply and sewage disposal. However, the latest census figures that identified that approximately 40% of houses were unoccupied and the resident population had reduced, leading to a largely absentee population of mostly holiday home owners who do not abide by the water conservation requirements of the community during the frequent water shortages that occur.

Mr Toorenburg considered that the easiest and most appropriate option to solve the water supply issues was the installation of water tanks for residential dwellings, and considered that new property developments should be required to install water tanks.

He also considered that the applicant should install more off-stream raw water storage capacity in the Waiarohia Catchment, and the replacement of the existing Waiarohia Dam with a weir and abstraction system similar to that currently in place on the Waitemarama Stream, which would restore the ecological value of the stream, including fish access, and address the water quality issues.

He considered that the water required for the Opononi-Omapere Supply should be taken from the Opononi-Omapere catchment, not from the catchment of another community, where it can restrict that community's development.

Mr Will Ngakuru

Mr Ngakuru was associated with Mr Toorenburg's submission, and is a member of the local community; his family has been in the Waimamaku Valley for generations. He stated that he was standing in support of Mr Toorenburg's submission and in particular to speak to the issues of water flow rate, as per page 4 of Mr Toorenburg's Submission; and the issue of rain water tanks, as discussed on page 9 of Mr Toorenburg's submission. Mr Ngakuru also identified himself as being a trustee with the Te Roroa Whata Ora Trust.

Re Water flow rate, Mr Ngakuru expressed concern with the statement made at the hearing by the applicant that "*it's not what we take out, it's what we leave in*", and concerns about the lack in how this is assessed. Their Tupuna named all the creatures in the stream by observation over hundreds of years, and the Maori world view is that they are related to those things. He stated that 2-3 days without water and the system will become severely affected, and the Whakapapa that has brought them to where they are now will be erased from the earth.

Mr Ngakuru described a local hill (Pakea Hill) and its value as a special place to himself and his people, who have been there for a long time. He explained how they have watched the lights disappear from the community, and the community become a largely absent population. However, he shares Mr Toorenburg's thoughts regarding the use of rainwater tanks by the community to solve the water issues. Mr Ngakuru has lived on rain water tanks for 10 years and he has learnt to conserve water, as have his children and his guests, so that when they go back to

town they have a greater appreciation of water conservation, and he regarded this as a gift he could give them

Mr Ngakuru made a request on behalf of the Te Roroa Whata Ora Trust that in future, the Councils (District and Regional) be aware of their relationship, and use their local knowledge, and they could use Council's scientific expertise, and they can be combined together to create something better for the next generation.

Mr George Nichols

Mr Nichols was speaking in support of Mr Toorenburg's submission, and is a member of the local community. Mr Nichols supported Mr Toorenburg's discussion regarding the use of rain water tanks. He said he has one for his own house, and this was generally sufficient. He stated that if every house had a tank, then they wouldn't need to take water from the Waiotemarama, the Waimamaku or the Waiarohia.

Mr James Newman

Mr Newman was speaking in support of Mr Toorenburg's submission, and is local resident and ratepayer. He supported the statement made by Mr Nichols that given proper management, the use of water tanks and enough roof area, water tanks would be perfectly adequate for this area. Mr Newman also expressed concern regarding compliance and monitoring issues associated with the previous consents, and requested that these be taken into consideration.

Mr John Klaricich (on behalf of Mrs K Toi)

Mrs Toi was a submitter on the applications associated with the Waiarohia Dam and take (CON7356). Mr Klaricich provided documents comprising photographs and letters to the Committee regarding the erosion of land and a sewage pipe blocking the stream near to Mrs Toi's property. The sewage pipe had since been removed, but the erosion damage to the bank still remains.

Mr Klaricich described Mrs Toi's concerns about the original installation of the dam and the potential for it failing, and the risk it posed to both her and her son's properties, being the only properties downstream. Mr Klaricich considered that there was substance in those concerns. He considered that the applicant has responsibility for the effects of the dam on the stream, which includes the reduced stream water quality, and also the eroded stream bed and adjacent property. The Waiarohia stream is subject to high volatile flooding events, where rapid flooding occurs, but also rapid subsidence of that flood flow. The photographs supplied show large floods that occurred in 1999. However, even the average sized flood (which is relatively minor) picks up all the debris which then causes blockages, and where the natural sequence of the stream flow has been removed and natural armouring is prevented, as occurs with the presence of the dam, then these floods cause even more damage than would occur under the natural situation. He considered that this damage was the applicant's responsibility due to the presence of the dam, and he requested that the Hearings Committee take this into consideration.

Mr Hans Mitt (on behalf of himself and his wife Mrs Mary Mitt)

Both Mr and Mrs Mitt were submitters on the Waiotemarama Stream application, and are neighbouring property owners adjoining the stream downstream of the applicants take point. Mr Mitt spoke on behalf of himself and his wife.

Mr Mitt endorsed the previous statements made by Messer's Toorenburg, Ngakuru, and Nichols re the Waitotemarama Stream take.

Mr Mitt also expressed concern regarding compliance and monitoring issues associated with the previous consents.

He submitted that the Waitotemarama Stream was only seen as a temporary measure, and that it was never going to be adequate as the primary source, and stated that they were given genuine assurance that it was only to be temporary and that investigations and studies into other sources and methodologies, including water tanks, were going to be undertaken. Now they are being told they should comply with, and invest in, the needs of the 'public good' by supporting the activity.

Mr Mitt stated that the recent recognition that the Waimamaku River can not be a source because the landowners will be adversely affected is similar to his situation with the Waitotemarama Stream; Mr Mitt stated that he and his neighbours are in that same boat, that they are going to be adversely affected with no prospect of tangible compensation.

Mr Mitt did not consider that the 'public good' is best represented by the current situation anyway. He stated that the majority of the Opononi/Omapere community is transient, and many of the long standing residents already have water tanks. Water quality has never been good, and is unable to meet standards, and with the recent Water Quality Amendment Act, it will be even more difficult to do so. Mr Mitt considers that there is insufficient volume in the Waitotemarama for the supply.

Pakanae Hapu Management Committee

K Taurau – Counsel

In the first day of the hearing in September 2007, Ms Taurau discussed the lack of consultation undertaken by the applicant prior to tendering the applications, and the minimal consultation after, which comprised a letter inviting comment, which Pakanae do not record as having been received, and that Ms Naera did not consider to be meaningful consultation.

Ms Taurau stated that the Applicant had not addressed the concerns raised by Pakanae in their submission, and that the NRC had not required a Cultural impact assessment be undertaken for the applications, in spite of a requested adjournment to enable further information on the adverse effects of the proposals on tangata whenua to be obtained under S92 of the RMA prior to the hearing.

Ms Taurau stated that the Waiarohia is the landing place of the Waka Mamari and is a highly valued taonga to the Hokianga; and that similarly the Waitotemarama is an ancestral waterway of significance.

Ms Taurau considered that there was no information before the Committee to enable a proper assessment of the adverse effects on the proposals on tangata whenua, as required by Sections 5, 6(e), 7(a) and 8 of the RMA. Accordingly Ms Taurau considered it appropriate for the Hearings Committee to adjourn part heard to enable a proper assessment of effects, and considered that there was no detriment to any party in granting the adjournment.

As discussed in Section 4 of this decision, the applicant's counsel, Mr Dawson, offered to undertake a cultural impact assessment in response to Pakanae's request, and the hearing was adjourned pending provision of the report.

The Cultural Effect Assessment was provided in June 2009. Upon reconvening of the hearing in August 2009, Ms Taurau summarised the conclusions of the Cultural Effects Assessment, which were as follows:

- That the present extractions from both Streams are unable to meet current and future PWS needs
- That the proposed supplementary use of Waitotemarama is now a primary source for the PWS, with a resultant detrimental effect on the Stream
- That there is a lack of information about the flow characteristics of the Waitotemarama despite such monitoring being required in the previous consent conditions
- Previous non-compliance with resource consent conditions imply the applicant has little regard for the cultural or sustaining value of the resource
- Lack of resolution of alternative supply and conclusive identification of areas of Omapere and Opononi to be provided public water supply
- Proper investigation of alternative raw and potable water storage sites is required
- That formalisation of the Opononi Omapere Water Conservation Strategy with regard to the storage of rainwater for new dwellings is necessary.

Ms Taurau identified the following recommendations by the Staff Officer that are considered to be inadequate to properly provide for the issues of concern to Pakanae:

- Conditions enabling the increased abstraction from the Waiarohia from 182 m³/day to a monthly average of 550 m³/day;
- Conditions enabling reduction below the MALF of 17.2 L/s for the Waitotemarama Stream;
- No requirement for alternative water supplies or strategies to be investigated;
- Continued use of the Waiarohia dam structure despite periodic non-existent flows downstream.

Ms Taurau reminded the Committee of those things that the consent authority must have regard to pursuant to Section 104 of the RMA, and considered that the proposals will result in significant adverse effects on tangata whenua (as discussed in the submissions from Messers Klaricich and Hessel) as well as on the environment as identified in the Staff Officer's reply.

Ms Taurau stated that the Applicant's past non-compliance with conditions of consent is a relevant matter for the Committee to consider pursuant to Section 104(c).

Ms Taurau stated that the applicant has failed to consider alternative sources of water, which is required pursuant to the Fourth Schedule of the Act. She quoted the Staff Officer's Reply which identified viable alternatives that had been investigated but dismissed by the applicant. However, the proposed conditions are silent on the future water supply source. She stated that it is Pakanae request that such alternatives are investigated as a condition of consent.

Ms Taurau submitted that the significance of these two waterways to Pakanae is without question, and that their relationship to their ancestral waters at the Waiotemarama and the Waiarohia Streams are matters of national importance to be recognised and provided for in the granting of these consents pursuant to Sections 6(e) and 7(a) of the Act. In addition, she considered that the principle of active protection is relevant with regard to an investigation of alternative options in this case, which is consistent with the requirements of Section 8 of the Act.

Mr Taurau questioned the sustainability of the proposals without sufficiently robust conditions of consent as mitigation, which would be contrary to the purpose of the Act.

Alan Hessel – Committee Member

Mr Hessel provided evidence as to the important fisheries that exist in the Waiotemarama and the Waiarohia Streams that Pakanae are Kaitiaki of, and of the cultural uses and practises which are under threat or have been lost as a result of the water take from both streams.

Mr Hessel said that they have carefully maintained these food gathering areas for regeneration and future sustenance. Regeneration of kaimoana beds is reliant on a fresh water-salt water mix. When the natural balance is altered it has huge impacts on the entire ecosystem. The Waiarohia Stream river mouth is the Kohanga (nest) main breeding area for kina, paua and agar. The upstream reach of the Waiotemarama Stream has outstanding water quality and habitat and migration up and down stream is imperative to the survival of many fish species.

Mr Hessel stated that they are aware that the Waiotemarama Weir is blocked from time to time to enable increased abstraction.

Fish migration upstream for spawning, and gravel movement downstream for stream armouring for the bed is prevented by the existing dam in the Waiarohia Stream, impacting the fish stock and causing erosion below the dam. The wisdom of locating a dam above a sewage treatment plant was also questioned, and concern regarding the water quality in the lower reaches which was considered to be adversely affected by seepage from the sewage treatment system and from the transfer station. Concerns were expressed regarding the stability of the dam, and the potential for flooding and slips.

Mr Hessel stated that they are concerned that a large increase in water take volume from the Waiarohia and the gravel extraction will have an adverse effect on their relationship with their taonga. They do not believe an increase in water take is necessary, and that with good management the current and future water demand can be accommodated if the FNDC enforce a mandatory requirement on all new homes to have onsite water storage.

Mr Hessel stated that they oppose the grant of consent with the conditions proposed by the applicant. He stated that Pakanae seek a decision that provides for their kaitiakitanga by the removal of the dam structure, and the construction of an off-stream storage facility. They oppose any increase in the volume of water extracted from the Waiarohia, and also seek the removal of riparian weeds and replacement with native plants to stabilise erosion, and stated that the local community are keen to participate in this.

Mr Hessel stated that they support a reduced water take from the Waiotemarama Stream, but seek an increase in the MALF as proposed by NIWA. They consider that the public water supply requires better management of the existing supply and mandatory onsite water storage for all new dwellings in the area of benefit.

Mr John Klaricich

Mr Klaricich outlined the intergenerational connectedness between tangata whenua and their ancestral water ways. Mr Klaricich discussed his long standing history of himself and his family with the area of the Hokianga where he has lived all his life, particularly with regard to the Waiarohia and Kokohuia. He also described the relationship of the Toi family to the Waiarohia, which includes 200 years of recorded history.

Mr Klaricich stated that the catchment of the Waiarohia Stream (and Waiwhatawhata and Pakanae Streams) is Maori owned. Their hapu also have the custodianship of the Hauturu catchment, being the source of the Waiotemarama Stream. Mr Klaricich wished to alert the Committee to this custodianship factor of their hapu, and to take this into account in their decisions.

Mr Klaricich recalled a number of other streams which no longer flow to the harbour. The Waiarohia is especially significant in that it is the sole surviving stream in the Opononi-Omapere area that flows to the Hokianga year round.

The Waiarohia Stream is an integral part of the Kokohuia place and people. An extensive village once stood where the Kokohuia Marae and Vicarage are, and now it is the Kokohuia Marae that provides the ongoing traditional and cultural context for their people. Besides its spiritual, cultural and traditional values Waiarohia provides amenity and observability values, and is the only healthy stream system the whanau and hapu of Te Wahapu have left.

Mr Klaricich expressed great concern that the flow below the dam is reduced causing stagnant pools during the summer months and permitted to cease altogether beyond the dam. He stated that this is not acceptable and that there must be summer flow into the harbour. He stated the dam must be removed and that there is no justification for it to remain. He questioned why the needs of the Opononi/Omapere property owners should compromise the health of the Waiarohia, particularly as these properties are large enough to include water storage needs, and properties outside this community have to provide their own water storage. He considered that the Council should not give such preferential treatment to the Opononi/Omapere township property owners.

Mr Klaricich also raised concerns regarding the inadequate streamside protection on the Waiarohia and the management of the transfer station that provides another source of contamination to the stream.

Mr Klaricich referenced Pakanae's involvement in the consent applications for the community's wastewater disposal, and the proposed condition for that consent regarding the development of a community liaison group to facilitate community involvement. Pakanae also propose that a similar condition be included in these consents for the water supply.

Mr Klaricich stated that they did not entirely agree with the proposed conditions of consent by the Staff Officer, and consider that the following matters should be included in conditions for both consents:

- The reticulation area of benefit be restricted to the current connections in Opononi/Omapere as defined in the FNDC, similar to the proposed wastewater consent;
- Inclusion of a community liaison group to play a significant role in the future management of the water supply, including investigations into alternative water supply sources;
- The instream dam structure be removed;
- That the applicant require all new dwellings in Opononi/Omapere and Kokohuia to include supplementary on-site water storage;
- That flows in the Waiarohia Stream be maintained at natural flows during summer;
- That the NIWA MALF be implemented on the Waiotemarama Stream from issue of consent (no six year lead in time)
- That the extraction volume on the Waiarohia be maintained at the current 182 m³/day.

Director General of Conservation

Represented by:

Trish Routley – Resource Management Planner

Andrew Riddell – Resource Management Planner

Ms Trish Routley represented the Department at the first part of the hearing in September 2009 and requested delay of presentation of their entire submission until after the provision of the cultural effects assessment (CEA), as she considered that the CEA could significantly affect their submission. The Department is subject to the Conservation Act, which requires them to take into account the Treaty of Waitangi, and therefore any cultural issues raised in the CEA would be taken into consideration in their submission.

Mr Riddell presented the Department's submission at the second part of the hearing in August 2009. Mr Riddell stated that their submission is constrained due to the two year delay in completing the hearing as Ms Routley had left, and the Northland Conservancy's freshwater expert was also not available. However, the preliminary assessment of the proposal by Ms Amy MacDonald, the Department's freshwater ecologist, was provided as an appendix to the Department's submission. Mr Riddell also provided as appendices to his submission habitat reports for a number of locations in the catchments of the Waiotemarama and Waiarohia Streams, attesting to the natural values of the middle stretches of the streams.

Mr Riddell's submission comprised an assessment of the proposal in terms of the requirements of the policies of the Water and Soil Plan for Northland. He considered the key issues were the reduction of the flows below the MALF, and the efficient use and conservation of water.

Mr Riddell highlighted the fact that one of the functions of the Department of Conservation as stated in Section 6 of the Conservation Act 1987 includes: *(ab) To preserve as far as practicable all indigenous freshwater fisheries, and protect recreational freshwater fisheries and freshwater habitats.*

Mr Riddell considered the NIWA estimate of the MALF for the Waitemarama Stream to be the more appropriate figure. He considered that the proposed reduction of the Waitemarama flow below MALF was inconsistent with the requirements of policies 9.5.3-5, and did not meet the criteria of policies 9.5.9 for exceptional circumstances, nor meet the requirements of policy 9.5.10, particularly (e), (g) and (h) regarding adverse effects on ecology, water quality and fish migration respectively. He held a similar opinion for the Waiarohia stream and dam.

Mr Riddell stated that alternatives such as water storage options, and more efficient operation of the Opononi/Omapere Water Supply Scheme, should be considered.

Mr Riddell stated that if consents are granted for the proposed water takes then the consent conditions should maintain the MALF of 17.2 L/s as continuation flow, and require fish passage for both the Waitemarama and Waiarohia structures

In the assessment by Ms MacDonald provided as an appendix, she described the high ecological value of the headwaters of the Waitemarama and Waiarohia Streams, and identified a number of fish species likely to be present, one of which is ranked as threatened, and most of which require access to the sea as part of their life cycle (diadromous). Therefore maintaining fish passage is considered fundamental to protecting the ecology of the streams.

Ms MacDonald stated that currently the Waitemarama Stream water take is significantly impacting on the ecology of the stream system, and native fish populations are being adversely affected by reduced flows and physical obstruction. Prolonged reductions in stream flow adversely affect habitat for native fish by decreasing habitat diversity. Low flows can also lead to increased water temperatures, and the temperature on the day of sampling was above the preferred temperature for two of the fish species expected to be present and likely leads to habitat avoidance.

Ms MacDonald identified concerns with the adequacy of the current weir structure of the Waitemarama Stream for fish passage, as the current design gives rise to flow velocities that exceed the upper threshold for ensuring fish passage.

The Waiarohia Dam provides a significant adverse effect on the stream ecology due to the absence of both flows and fish passage.

The disruption of fish passage in the Streams was considered to represent a significant adverse effect of the ecology of the respective ecosystems.

Mitigation measures proposed by Ms MacDonald include the following:

- Increase in residual flow in the Waitemarama (which should reduce temperature, oxygen, nutrient and turbidity effects)
- Provide for fish passage on the Waitemarama Stream weir structure
- Put constraints on riparian disturbance of the Waiarohia Stream
- If new water supply alternatives are found, restore the residual MALF flow beyond the Waiarohia dam, and construct a fish pass to restore ecology of the stream.

5.3 Council's Reporting Officer's Report and Evidence

Miss Angela Stride, the Regional Council's Water and Wastes Management Officer, had prepared the Staff Report which provided a comprehensive assessment and analysis of the issues, and provided the Committee with a recommendation to grant the consent subject to certain conditions and term. The report was taken as read.

Miss Stride's report included an overview of the history of the Opononi-Omapere Public Water Supply and the associated resource consents, the historic water demand by the community including seasonal variations, water savings measures implemented and their effects on the water demand, alternative water sources investigated, assessment of the effects of the respective water takes based on all the water quality data and ecological monitoring undertaken on the streams, and an assessment of the activities with respect to the requirements of policies within the Regional Plans. Miss Stride's report also included a review of the applicant's supporting information for the applications, their water demand calculations and their assessment of environmental effects.

In her written reply to the evidence that was heard at the first part of the hearing, Miss Stride provided a critique of the evidence provided by the applicant's representatives, and a review of the environmental assessment provided by Mr Poynter, which was different to the one provided with the application.

Miss Stride's conclusions and recommendation can be summarised as follows:

(a) Opononi-Omapere Public Water Supply Water Use (Demand)

- Water use records show a reduction in water use since implementation of meters and repair of leaks. Miss Stride considered that the calculations of future water requirements as estimated by the applicant are excessive, based on historic data including years of excessive water use due to leaks and pre-metering.
- Nevertheless, the average daily water limit she provided in the recommended conditions for the renewed consent (550 m³/day) is based on the applicant's estimated average summer water use in 2026.
- According to Miss Stride's calculations using water use data corrected for leaks and recent water use reductions, a maximum abstraction of 750 m³/day is considered sufficient to meet peak demand that occurs on only 1-3 none consecutive days during summer.
- In addition, Miss Stride considered that such a relatively infrequent occurrence can best be addressed by utilising existing storage capacity in the water supply system rather than placing the demand directly on the run of stream source.
- These reduced water abstraction volumes (and resultant 24 hour instantaneous take rates from the stream) were considered by Miss Stride to be mitigation measures for protection of the stream against adverse effects identified in the water quality monitoring.

(b) The estimated Mean Annual Low Flow (MALF) of the Stream

- Miss Stride considered that the estimate provided by the Applicant's engineer Mr Kreegher (13.8 L/s) was not the best estimate of the MALF as the flow censoring employed by Mr Kreegher was excessive (based on rainfall of 2 millimetres) which reduced the data used in the estimation to less than half the data available. In addition, the one day MALF value was used, rather than the seven day MALF used in current hydrological research; and only one river was used in the correlation exercise.
- Miss Stride considered that the MALF as estimated by NIWA (17.2 L/s) is more scientifically robust due to their being the national hydrological experts using updated research methodology, appropriate flow censoring and multiple (7) rivers in the correlation exercise.
- Miss Stride stated that the Applicant's insistence on using the one day MALF is based solely on their claim that the Regional Water and Soil Plan (RWSP) policy and Appendix 11 of the RWSP state that only the one day MALF should be used. However, Miss Stride stated that current research recommends that the seven day MALF be used as the minimum flow to protect flow sensitive small streams. Policy 9.5.19 and Method of Implementation (MOI) 9.6.37 of the (RWSP) state that updated research should be considered, and MOI 9.6.17 says that other appropriate methods can be utilised, when estimating design minimum flows, and Appendix 11 states that the most conservative estimate should be used where there is uncertainty. Therefore the NIWA seven day MALF assessment is more consistent with current research and is consistent with the requirements of the RWSP.
- Miss Stride stated that the statistical analysis rules Mr Kreegher refers to, to attempt to refute the NIWA estimate have been shown in peer reviewed hydrological research to not apply to hydrological settings due to the natural variability that occurs in stream/river flows.
- Miss Stride stated that she had used the applicant's estimate of the MALF in the proposed condition regarding the continuation flow purely to facilitate progress with the consent, with a view to this value being reviewed in 5 years in accordance with proposed Condition 3 using the flow data collected by the continuous flow recorder, which should enable a better estimation of the true MALF.

(c) Effects of the Abstraction on the Stream/Reduction to below MALF

- Miss Stride stated that she did not agree with the conclusions provided by the Applicant's ecologist Mr Poynter in either the application documents or the hearing evidence. Miss Stride's written reply contested most of Mr Poynter's evidence which she stated had included apparent contradictions, omissions and incorrect assumptions. Miss Stride's assessment of the monitoring concluded that there is an adverse effect of the applicant's activity on the Waitemarama Stream.
- Miss Stride stated that Mr Poynter's assessment relied on the assumption that the MALF for this stream is 13.8 L/s as estimated by the applicant, not the 17.2 L/s assessed by NIWA, which she considered was an incorrect assumption which had significant implications for the validity of his entire assessment.

- Miss Stride considered that the approach undertaken by Mr Poynter in his evidence of limiting his assessment to just the absolute reduction of the stream flow by 3.8 L/s (28% of the applicant's estimated MALF) was also considered to be flawed. His evidence stated that the relative reduction of 28% is actually significant. In addition this approach did not consider the effects of removing the natural flow variability caused by consistently maintaining the flow at 10 L/s as a result of the take, a point also admitted by Mr Poynter's in his evidence.
- Miss Stride pointed out that a continuation flow of 10 L/s as requested by the applicant is 10% lower than the applicant's estimated five year return period drought flow. She stated that maintaining the stream at this drought flow for extended periods of time over the summer high temperature conditions as a result of the Applicant's take would, by definition, cause adverse effects on the stream, as she considered was clearly demonstrated by the limited monitoring data that had been obtained for this stream, which were actually collected during cooler than normal conditions.
- Miss Stride stated that Mr Poynter had limited his assessment for the Waitemarama to a point only halfway down the catchment from the take point. However, because this is a very small stream, Miss Stride considered that the Applicant's abstraction is a significant proportion of the volume of water in the entire length of the stream. She stated that actual flow gauging down the catchment undertaken by the Regional Council clearly demonstrates this. Miss Stride stated that the principal of the replacement of the absolute volume of the abstraction by incoming flows downstream as used by Mr Poynter in his evidence as sole justification for assessing only the 2 km section is usually only utilised when considering the water volume available for downstream water users. In Miss Stride's opinion, it is not appropriate to use when considering the water quality effects of the abstraction, which should also take into consideration the reduced assimilation capacity of the stream, as stipulated in Section 35 of the RWSP
- Miss Stride stated that the changed land use in the lower catchment results in lower water quality in the lower reaches of the stream. Research shows that water abstractions of large proportions of a watercourse flow are one of the key issues identified as causing further reduction of water quality, due to the reduced dilution effect for inputs (assimilation capacity). A reduction of up to half the volume of the stream flow from the better quality upper reaches as proposed in this Application, serves to reduce the water quality in the lower reaches much greater than would occur under natural flows, resulting in the extremely degraded system clearly demonstrated by the monitoring.
- Miss Stride considered that this flow reduction effect is particularly important for the Waitemarama Stream because of the specific characteristics of the stream. The stream has a black boulder bed which exacerbates heat effects, by absorbing heat from the sun and providing an additional heating source. In addition the monitoring data show that the stream has naturally elevated phosphorus concentrations from a geological source that increase during low flows due to the greater contribution of groundwater to the stream flow at low rainfall times. Phosphorus adheres to sediment, a large proportion of which is washed down-gradient and is therefore relatively more concentrated in the lower reaches of the stream. Under the increased solar radiation of

summer in concert with the lower flows, the naturally elevated phosphorus causes increased aquatic plant activity which leads to significantly elevated pH, due to plant respiration. Miss Stride stated that the data clearly show that this pH effect occurs in the entire length of the stream, even in the upper reaches, but is worse downstream due to the open aspect of the stream leading to greater solar exposure, and the increased concentration of phosphorus in the lower reaches. She stated that reduction of the water volume in the stream resulting from the abstraction serves to increase the relative concentration of phosphorus and exacerbates this effect.

- Miss Stride also pointed out that the temperatures on the day of sampling in February 2006, although significantly elevated as described by Mr Poynter, were not as high as would be expected due to the weather being overcast and drizzly. However, even during these lower than normal temperatures, the pH and phosphorus concentration exceeded the water quality guidelines for the entire length of the stream downstream of the take, and the continuous water quality recorder data show that it approached pH 9 in the lower reaches, which is very high. Miss Stride stated that had the weather been more normal, the temperature would likely have been much higher, which would have resulted in increased plant activity and therefore even higher pH and phosphorus levels. The April 2005 water quality data show the pH exceeded nine in the lower reaches.
- Miss Stride stated that Mr Poynter had not taken account of this elevated phosphorus or pH in his assessment. She also stated that he had also not included the 2005 water quality dataset which demonstrates the seasonal variation, and show significantly worse pH and phosphorus effects. Miss Stride stated that Mr Poynter had mentioned the potential adverse effects of elevated pH in streams in the addendum to his evidence but he had provided no discussion as to what these adverse effects could be. However, Miss Stride stated that the macroinvertebrate report provided with the S92 information described the adverse effects of the elevated pH in this stream as being significant.
- Miss Stride also stated that no ecological monitoring had yet been conducted in the upper 2 km reach of the Waitemarama Stream (other than 20 m downstream of the take point) to determine the effects of the elevated pH in the upper to mid section, which she stated was why further monitoring is considered to be required and proposed in the monitoring schedule. In addition, she stated that the monitoring to date had not reflected to worst case scenario conditions (normal elevated temperatures and low flows) likely to occur on this stream, which she stated provided more justification for further monitoring.

(d) The Alternatives Investigated as Solutions to the PWS Water Supply Issues

- Miss Stride stated that in her opinion the applicant had not considered all available alternatives to the current proposal to place the entire excessive demand of this water supply on the run of stream take from a very small, ecologically sensitive water source. She considered that the alternatives include:

- An off stream reservoir in either the Waitemarama or Waiarohia catchments, as recommended by, and deemed to be feasible in, the Applicant's own reports;
- Increased bulk treated water storage, and on-site water tanks for residential dwellings as recommended in the FNDC District Wide Water Conservation Strategy and submitters to the hearing.
- She stated that a best practical option assessment had not been provided as part of the application despite repeated requests during processing of the consent.
- Miss Stride considered that security of supply concerns expressed by the applicant to justify the large abstraction volume were not considered to be relevant as the rare peak abstraction volume that occurs once per year can easily be covered by the current storage capacity of the water supply.
- Miss Stride also considered that the security of supply issues expressed by the applicant as justification to maintain the current 10 L/s continuation flow were also questionable, as better management of the water supply such as pumping at a lower take rate over the full 24 hours, and use of the current 4450 m³/day storage capacity (eight days average daily demand in 2026) in concert with implementation of leak minimisation measures as proposed in conditions of the consent would enable abstraction of sufficient water for the water supply as well as implementation of an increased continuation flow to provide protection for the stream.

(e) Proposed Consent Conditions

- Miss Stride stated that the applicant was requesting the removal of a number of proposed consent conditions which, if approved, would essentially provide for the status quo to continue. She stated that the consent has a verifiable history of non compliance issues, and some of the proposed consent conditions have been included to address this, and enable better compliance monitoring by the Regional Council.
- Miss Stride quoted the applicant's opinion that the proposed conditions regarding leak detection and implementation of the water shortage contingency plan should be removed as they consider they are adequately covered in the Water Conservation Strategy (WCS). However, during the term of the current consent Miss Stride said that the provisions of the WCS were not implemented as required, despite repeated requests from the NRC. Therefore she said these provisions have been included as specific conditions of consent to ensure that they are implemented in the future. In addition, she stated that these proposed conditions are considered to be mitigation measures for issue of the renewed consent at the current continuation flow of 10 L/s for the proposed lead in time of the first six years.
- Miss Stride stated that the objections by the applicant that the requirements of the conditions are onerous and would require extra staff is not supported, as most of the information specified in the conditions are automatically collected by the continuous flow recorder and appropriate software, as currently occurs with wastewater telemetry. In addition, she considered that the proposed leak detection is not overly onerous and given the long raw water line over unstable land, as well as

the aging reticulation system which is prone to leaks, is considered vital to minimise the high water wastage that occurs in this public water supply. Miss Stride said she thought that most responsible water suppliers would usually already have these meters in place and in her recommended conditions of consent had also reduced the frequency of meter reading to monthly during the summer period as requested, which results in only 5 occasions of per year which she considered was not overly onerous.

- Miss Stride stated that the proposed raising of the continuation flow to the MALF after six years is considered vital for the protection of this stream, given the adverse effects occurring at the current 10 L/s flow as she considers are clearly demonstrated in the monitoring, and to ensure that the applicant adequately addresses the water supply problems that they have been aware of for 30 years. She considered that there are relatively simple and inexpensive options available for this supply, and the applicant has had plenty of time to address these issues already. She stated that she would strongly disagree with the reissue of the consent at the same continuation flow for a further 17 years, which would only encourage further procrastination by the applicant.
- Miss Stride stated that the applicant has proposed the removal of all water quality monitoring for the renewed consent. She considered that the monitoring that is available to assess this activity is already minimal, but she said that, that which has been obtained even under lower than normal temperature conditions clearly demonstrated adverse effects occurring, and also that there is considerable seasonal variation. She stated that the monitoring proposed is required to assess whether the conditions as proposed are adequate to provide protection to the stream, and a review of this monitoring after the first 5 years of the consent, along with a review of the MALF using the stream flow data from the continuous flow recorder, will provide the information required to determine the appropriate increased continuation flow for this consent which will be implemented after the six year lead in time. She considered that these monitoring and review conditions were therefore vital for determining the effects of this activity.
- Miss Stride stated that therefore she strongly disagreed with most changes to conditions proposed by the applicant and considered that most all conditions as originally proposed in her recommendations were vital to ensure protection of this sensitive high quality stream and enable adequate monitoring of this consent.
- Miss Stride did identify some minor changes to the recommended conditions she was now proposing as a result of the applicant's requests.

(f) Submitter Concerns

- Miss Stride considered that, in general, many of the submitters concerns were consistent with her own conclusions, and she considered that the proposed conditions would go some way towards mitigating those concerns.

- In response to the issues raised regarding the reinstatement of the flows and fish passage in the Waiarohia Stream by representatives of the Pakanae Hapu Management Committee, Miss Stride stated that while she was supportive of the concept of reinstatement of the Waiarohia flows and stream as requested, the policies in the Regional Water and Soil Plan allowed for the continued use of the dam where minimal flows had been maintained below the dam for greater than 10 years, and also while the dam and reservoir were required as an active component of the water supply, she could not recommend to reinstate that flow. She stated that the reason she had recommended the increase in water volume abstracted from the stream/reservoir be approved, was because the dam reservoir was effectively being utilised as a storage dam for the water supply in the current configuration of the water supply. She stated that there are policies in the RWSP that recommend consideration of reinstatement of both flows and fish passage beyond dams that are no longer actively used, but they do not require it. She stated that she would support reinstatement of the flows and installation of fish passage if the dam was no longer used as an active component of the water supply in future.
- Miss Stride also agreed with some of the suggested conditions in Mr Klaricich's submission regarding the community liaison group and restriction of the consent to the current area of benefit.

6. SITE VISIT

The Committee inspected the Waiotemarama water intake structure at 3.00 p.m. on 13 August 2009.

7. PRINCIPAL ISSUES

The principal issues that were in contention were:

- (a) The volume of water required to provide a potable supply to the Omapere/Opononi Community.
- (b) The maximum volume and instantaneous abstraction rate from the streams
- (c) The Mean Average Low Flow (MALF) for the Waiotemarama Stream
- (d) The effects of the abstractions on the Streams
- (e) The appropriate continuation flow for the Waiotemarama and the Waiarohia Streams.
- (f) Monitoring requirements for the consents
- (g) Erosion and flooding effects associated with the Waiarohia Dam
- (h) The alternative methodologies for the water supply
- (i) Cultural issues associated with the respective streams
- (j) Consent Compliance Monitoring

8. MAIN FINDINGS OF FACT

The Committee considers that the following are the main facts relating to this application:

(a) Water Demand

- (i) Based on historic water use records, the Applicant has estimated an average daily water requirement for this community in 2026 of 525 m³/day.
- (ii) Water use records show an apparent reduction in water use by this community water supply in recent years. This may be attributable to the reduction in leaks, as attested to by the Applicant's representative Mr Fog, and potentially also due to the change in household occupancy from permanent to holiday homes, as described by a number of submitters, and evidenced in census figures.
- (iii) The implications of this apparent reduction in community permanent population on the estimated future average requirements of the water supply are currently unknown.
- (iv) There is an influx of holiday population during the summer season that places a temporary increased (peak) demand on the community water supply, estimated by the applicant to be double the average daily demand.
- (v) The water supply currently has 1,450 m³ capacity of treated (potable) water storage, and the Waiarohia reservoir has a capacity of approximately 3,000 m³.

(b) Volume of Take and Rate of Taking

- (i) The applicant has agreed with the average daily abstraction limit of 550 m³ included in a condition of consent.
- (ii) The applicant has requested a maximum daily abstraction volume from the respective streams of 900 m³, based on an estimated doubling of average daily demand during peak holiday season. However, the staff officer reports that this peak demand occurs generally only once, and a maximum of up to three non-consecutive days, during the summer season, and considers that 750 m³ is adequate to meet the demand.
- (iii) There is a 150 m³/day difference between the two estimated volumes.
- (iv) In approving an average daily abstraction of 550 m³ and maximum daily abstraction of 750 m³ from both stream sources in the renewed consents, the Committee considers the combined volume is more than adequate to cover the requirements of the water supply.
- (v) In addition, the current storage capacity of the water supply system is adequate to cover the relatively infrequent and temporary increased demand, providing security of supply.

- (vi) The instantaneous rate of taking for the Waitotemarama Stream take is based on 24 hour abstraction of the maximum volume abstracted. The Committee considers that the water supply storage capacity will account for pump down times associated with maintenance. Maximising pump hours will minimise the instantaneous rate, minimising the effect of the abstraction on the flows in the stream.
- (vii) There is no maximum rate of taking proposed for the Waitarohia Stream take as the reservoir storage capacity is being actively utilised as part of the community water supply system.

(c) The MALF of the Waitotemarama Stream

- (i) The applicant considers the best estimate of the MALF to be 13.8 L/s; the Staff Officer and many Submitters including the Department of Conservation consider the best estimate of the MALF to be the 17.2 L/s estimated by NIWA.
- (ii) The NIWA report, provided to the Committee as part of the Section 92 evidence at the hearing, recommends installation of a continuous flow recorder to obtain more flow data to increase the certainty of the estimations.
- (iii) The applicant has accepted the condition requiring installation of the continuous flow meter. Data collected during the six year lead in time prior to increase of the continuation flow will enable re-estimation of the MALF using the additional data.

(d) The Effects of the Abstractions on the Streams

- (i) The streams are acknowledged by all parties as having high ecological value, and of having relatively high diversity of biota upstream of the respective take points, but lower water quality and subsequently lower diversity in the downstream reaches of the streams due to changed land use and adjacent activities and reduced riparian shading.
- (ii) According to the applicant's ecologist, his assessment of the effects of the take on the Waitotemarama Stream being minor is dependent on the assumption that the MALF is 13.8 L/s, and the replacement of the absolute volume of water abstracted by inflow limited the effects of the activity to the upper 2 km of the stream. However NIWA assessed the MALF as being 17.2 L/s.
- (iii) The water quality monitoring indicates that the Waitotemarama Stream has naturally elevated phosphate concentrations, which, under warmer summer conditions results in increased aquatic plant activity, which can ultimately result in increased pH from plant respiration. The more exposed lower reaches of the stream are subject to increased pH and also temperature effects. The abstraction of significant proportion of the natural stream flow can exacerbate this effect.
- (iv) The Applicant's ecologist acknowledged potential adverse effects of lower water quality, particularly pH, on fish communities, and the Department of Conservation highlighted the fact that the temperatures observed on the day of monitoring would likely lead to fish avoidance for some species. The temperatures recorded on the

day of monitoring were lower than would normally be expected during summer due to the overcast drizzly conditions.

(e) Continuation flow for the Waioitemarama and the Waiarohia Streams

- (i) The Committee consider it appropriate to increase the continuation flow required by the condition on the renewed consent for the Waioitemarama Stream take to a minimum of 14 L/s to provide mitigation for the observed water quality effects and their effect on fish migration in the lower reaches of the stream.
- (ii) A lead in time of six years is considered appropriate to enable the applicant to prepare appropriate methodologies for the management of the community water supply to enable less reliance on the run of stream take from the Waioitemarama Stream during low flows. During this timeframe, collection of further flow data will enable a reassessment of the MALF of the stream, and enable the collection of more monitoring data, to reveal the full extent of effects of the Applicant's take on the stream.
- (iii) Security of supply issues raised by the Applicant are considered by the Committee best addressed by better management of the Community Water supply using alternative methodologies such as using the existing storage capacity of the water supply system and the supplementary supply from the Waiarohia Stream. Investigation into alternative additional methodologies such as increased storage capacity, onsite rainwater tanks, or an additional/alternative supply source during the six year lead in time will provide the greater security of supply sought by the applicant.
- (iv) A minimal continuation flow consistent with the existing consent is considered appropriate for the Waiarohia Stream while it is being actively utilised as a key component of the community water supply system. In the event that the reservoir is removed from active service the Committee consider that it would be beneficial for the Applicant to consider reinstatement of the natural stream flow and fish passage, or potential removal of the dam structure, in accordance with the wishes of submitters and Policies 11.5.1(i) and 11.5.16 of the RWSP.

(f) Monitoring Requirements for the Consents

- (i) There is minimal monitoring information on which to base the effects assessments for these consents.
- (ii) The monitoring undertaken to date does not reflect the full range of conditions the stream is subject to.
- (iii) There is no ecological monitoring to provide assessment for the mid reaches of the stream.
- (iv) Therefore monitoring required by the monitoring schedule is considered appropriate to be able to fill these information gaps and enable a better assessment of the effects of the applicant's activity. This information will be used to determine the appropriate continuation flow at the completion of the six year lead in time.

- (v) The six year lead-in timeframe will also enable better assessment of the actual water use by this community supply, and the effects of leak detection measures on reduction of the water demand.

(g) Erosion Effects Associated with the Waiarohia Dam

- (i) Conditions of consent regarding active armouring of the stream are considered by the Committee to mitigate the concerns raised with respect to erosion of the stream banks downstream of the dam.

(h) The Alternative Methodologies for the Water Supply

- (i) It is the Committee's opinion that not all methodologies for the management of this water supply have been fully considered.
- (ii) The Applicant submitted that their investigations showed that there were no viable alternatives other than the Waitemarama or the Waimamaku Rivers. However, several submitters suggested other options not offered by the Applicant including residential onsite rain water storage for new subdivisions and the consideration of retrofitting rain water storage for existing dwellings.
- (iii) The Committee considers that additional bulk treated water storage options as well as better management of the existing treated and raw water storage could also be considered.
- (iv) Conditions on consent regarding active leak detection and management will enable further reductions in water demand, which should also help ameliorate security of supply issues.
- (v) Some submitters expressed concern that there is no condition on the renewed consents regarding the requirement to investigate alternative water sources. The Committee considered that such a condition was not necessary as the primary driver for addressing the community supply issues will come from the requirement to increase the continuation flow on the Waitemarama Stream. They did not consider it appropriate to limit the Consent Holder to solving the community water supply problems by finding an alternative source, when there are a range of options available to it to address the water supply problems, such as minimisation of water losses and increased bulk or onsite domestic water storage.

(i) Cultural Issues Associated with the Respective Streams

- (i) The cultural issues included maintenance of sufficient flow in both streams to maintain water quality to sustain the natural ecology of the streams and the harbour.
- (ii) With regards to the Waitemarama Stream, the Committee considers that raising the continuation flow will go some way to mitigate some of these concerns.
- (iii) The Committee wished to acknowledge the significant adverse effects placed on the Waiarohia Stream by the presence of the dam on the stream and the water take, which has been present for over 40 years. However, while the Waiarohia reservoir is a significant component of the current community water supply system the Committee did not feel that they could recommend increasing the

flows in the Waiarohia Stream or reinstatement of fish passage at this time, as this would place significant constraints on the ability of the Applicant to provide a secure supply to the community.

- (iv) However, the Committee considered it appropriate to recommend that the Applicant consider reinstatement of the flows and fish passage beyond the dam structure in the event an alternative source or storage option, or other alternative option that reduced reliance on the storage capacity of the reservoir was implemented in future, which is included in an advice note.
- (v) The Committee considered that the request by Mr Klaricich for a condition requiring formation of a liaison group for the water supply, and the request to limit the purpose of the Consent to the current area of benefit for the water supply, were appropriate and noted that the Applicant was amenable to such conditions, as indicated by Ms Fordyce at the hearing.

(j) Consent Compliance Monitoring

- (i) Submitters expressed concerns for the Waiotemarama Stream if the consent is granted and requested more robust compliance monitoring.
- (ii) The Committee considers that consent conditions regarding the installation of the continuous flow recorder associated provision of data to the NRC should meet their concerns. In addition, reporting required by other conditions of the consent would enable the Regional Council to better monitor compliance with the implementation of the Contingency Plan and leak detection conditions of the consent.

9. RELEVANT STATUTORY PROVISIONS

9.1 Policy Statements and Plan Provisions

In considering this application, the Hearings 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:

- (a) Regional Policy Statement for Northland (RPS);
- (b) Regional Water and Soil Plan for Northland (RWSP);
- (c) Resource Management Act 1991 (RMA)
- (d) Ngā Hapū O Te Wahapū O Te Hokianga Nui A Kupe Hapu Environmental Management Plan 2008.

It is considered that with the proposed conditions of consent, this application meets the requirements of these planning documents.

9.2 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.

Therefore, it is considered that, based on the conclusions in Section 8 and with the proposed conditions of the consent, the granting of these consents will be consistent with Section 5 (promotion of sustainable management) of the Act.

10. DECISION

10.1 Section 37 Waivers

The failure to meet the statutory timeframes by the following submitter for lodgement of his submissions is waived in accordance with Section 37(1)B:

- T A Reuben.

10.1.1 Reasons for the Decision

The applicant did not oppose the waiver as it applied to the late submission. The Committee determined that there were no new issues raised in the late submission and it does not unduly prejudice the applicant. The acceptance of the late submissions is consistent with the principle of inclusion in the participatory process of the Resource Management Act, and the requirement to demonstrate undue prejudice to justify non-inclusion.

10.2 Waiotemarama Stream Resource Consent

Pursuant to Section 104B of the Act, the Committee **GRANTS** consent subject to conditions imposed pursuant to Section 108.

CON20040436901 **Notified Replacement**

FAR NORTH DISTRICT COUNCIL, PRIVATE BAG 752, KAIKOHE 0440

To undertake the following activities on Road Reserve adjacent to Lot 3 DP 125968 Blk IX Wauku SD (Gorge Road), Waiotemarama, at location co-ordinates 1639720E 6067716N (*Note: all location co-ordinates in this document refer to Geodetic Datum 2000, New Zealand Transverse Mercator Projection*), associated with a Public Water Supply servicing the townships of Omapere and Opononi, as defined by the operative Far North District Council Plan, and all existing connections to this system that are outside these townships, as at the date of commencement of these consents:

- (01) To take water from the Waiotemarama Stream
- (02) Use and repair of a weir and intake structure in the bed of the Waiotemarama Stream.
- (03) To dam, divert and discharge water associated with a weir structure on the bed of the Waiotemarama Stream.

Subject to the following conditions:

- 1 The quantity to be taken shall not exceed the following:
 - (a) A daily average of 550 cubic metres per calendar month; nor
 - (b) A daily average instantaneous take rate of 6.4 litres per second for each calendar month; nor
 - (c) A maximum of 750 cubic metres per day; nor
 - (d) A maximum take rate of 8.7 litres per second.

- 2 Notwithstanding any other conditions, the exercise of these consents shall not result in the flow of the Waitotemarama Stream, as measured immediately downstream of the take point, to be reduced below the following:
 - (a) Ten litres per second until six years from the date of commencement of these consents; and
 - (b) Fourteen litres per second thereafter.
- 3 Prior to five years from the date of commencement of these consents, the Consent Holder shall forward to the Regional Council a report that includes at least the following information:
 - (a) Analysis of all the monitoring data required to be collected by these consents; and
 - (b) Details of water use efficiency improvements made since the date these consents commenced; and
 - (c) Details of water management improvements since the date these consents commenced.

If the Consent Holder considers that the continuation flow should not be increased in accordance with Condition 2(b), then the justification for such a conclusion based on the above information, and any other considerations such as cost, should be included in the report.

The Regional Council may, in accordance with Section 128, serve notice on the Consent Holder of its intention to review Condition 2. Such notice may be served at any time during the sixth year after the date of commencement of these consents. The Consent Holder shall meet all reasonable costs of any such review.

- 4 The Consent Holder shall, within six months of the date of commencement of these consents, install and maintain a device that continuously measures the water level of the Waitotemarama Stream upstream of the intake structure to an accuracy of ± 5 millimetres. The device shall be used to measure and record the water levels at least every 15 minutes.
- 5 The design and construction of the water level measurement device, as required by Condition 4, shall be undertaken in consultation with the Regional Council's Hydrology department. The water level measuring device shall not be installed until the Regional Council's Monitoring Manger has provided written certification that the water level measuring device is capable of meeting the requirements of Condition 4.
- 6 Once the certified water level measuring device has been installed, the Consent Holder shall have the intake structure calibrated so that flow measurements of the Waitotemarama Stream upstream of the intake structure can be accurately calculated. The calibration of the structure shall be undertaken by a suitably qualified and experienced person. The Consent Holder shall forward the details of the person who undertakes the calibration to the Regional Council at least two weeks prior to the work being carried out. The intake structure flow calibration information shall be forwarded to the Regional Council within two weeks of the calibration being completed.

- 7 The weir structure, water level measurement device and intake structure(s), including pumps, shall be adequately maintained so that they operate effectively at all times. In addition, there shall be no obstruction placed within the weir structure that redirects flows to the intake chambers.
- 8 The Consent Holder shall maintain a meter with an accuracy of $\pm 5\%$ on the water intake that measures the instantaneous rate of taking and daily take volumes.
- 9 A screening device shall be maintained on the intake structure that shall have no holes or slots with a diameter or width greater than 5 millimetres.
- 10 The Consent Holder shall keep a permanent record of the following:
 - (a) The water level of Waitotemarama Stream upstream of the intake point at least every 15 minutes using the device required by Condition 4;
 - (b) The calculated flow within Waitotemarama Stream upstream of the intake point at least every 15 minutes;
 - (c) The instantaneous rate of taking at least every 15 minutes;
 - (d) The calculated continuation flow immediately downstream of the take point at least every 15 minutes;
 - (e) The duration and quantities of water taken daily; and
 - (f) The period(s) of the day during which water is taken.

For the compliance purposes, the continuation flow shall be calculated by subtracting the instantaneous take rate, as required by Condition 10 (c), from the calculated flow of the Waitotemarama Stream upstream of the intake point, as required by Condition 10 (b).

- 11 During the period 1 November to 31 May, the Consent Holder shall forward to the Regional Council a copy of the following records for each fortnight (being Saturday to the Friday 13 days later), by the Tuesday of the following week:
 - (a) The water level data of the Waitotemarama Stream upstream of the intake point;
 - (b) The hourly mean instantaneous rate of taking;
 - (c) The hourly mean continuation flow immediately downstream of the take point;
 - (d) The minimum instantaneous continuation flow for each day;
 - (e) The duration and quantities of water taken daily; and
 - (f) The period(s) of the day during which water is taken;

During all other times, the Consent Holder shall forward to the Regional Council by the 15th of each month a copy of the following records for the preceding calendar month:

- (g) The water level data of the Waitotemarama Stream upstream of the intake point;
- (h) The minimum hourly mean flow upstream of the take point, for each day;
- (i) The minimum hourly mean continuation flow immediately downstream of the take point, for each day;

- (j) The duration and quantities of water taken daily; and
- (k) The period(s) of the day during which water is taken.

In addition, the Consent Holder shall forward to the Regional Council a copy of all requested records immediately on written request by the Regional Council.

The information required by this condition shall be sourced from the data required to be collected by Condition 10. For compliance purposes, the “hourly mean” records shall be calculated as the average of all the measurements taken at least every 15 minutes throughout the hour.

- 12 The Consent Holder shall monitor and record the exercise of these consents in accordance with the monitoring programme specified in Schedule A (**attached**).
- 13 The Consent Holder shall undertake leak detection measures to minimise reticulation water losses within its Opononi-Omapere Public Water Supply system. The leak detection measures shall include, as a minimum, the following:
 - (a) Flow meter installation ports located at all of the following water supply main locations which are capable of either temporary or permanent flow meter installation for leak detection purposes:
 - (i) Both ends of the rising main from the intake to the raw water storage reservoir.
 - (ii) Both ends of the gravity main from the raw water storage reservoir to the water treatment plant.
 - (iii) Both ends of the Pumping Main from the Water Treatment Plant to the treated water reservoir.
 - (iv) At the outlet from the Treated water reservoir to the reticulation network.
 - (b) Flow meters shall be installed at the locations detailed in 13(a) and shall, as a minimum, be read during the first week of every month during the period 1 December to 30 April. A record of the meter readings shall be kept and a comparison of the quantities of water at each stage in the water supply system undertaken to determine the location of potential water losses in the system. The losses within the reticulation network may be calculated from the difference between the treated water reservoir and the sum of the water use of connections to the network, as determined from flow meters installed on private properties within the area of benefit which are already read for rating purposes.
 - (c) In the event that significant difference is observed at any of the stages of the water supply system as defined by Condition 13(a) and the reticulation network to private properties the Consent Holder shall immediately undertake further investigation to determine the cause of the loss, and carry out all necessary repairs as soon as practicable.

Advice Note: For the purpose of this condition “significant difference” is defined as being a 20 percent or greater difference between the volume of water entering the stage of the system compared to the volume of water exiting the stage of the system. The cumulative losses from all parts of the reticulation system should not exceed 20% of the total production volume.

14 A report detailing the results of leak detection monitoring required by Condition 13 shall be forwarded to the Regional Council by the 31 May each year for the previous year (1 May to 30 April), and also immediately upon written request by the Regional Council.

15 The Consent Holder shall implement the following water shortage contingency measures:

Flow (L/s) in Waiotemarama Stream as measured at NRC site number 47110 ¹		Contingency Measures (when continued dry weather forecast)
Continuation flow 10L/s ²	Continuation flow 14L/s ²	
26	30	Priority 3. The Consent Holder bans non-essential water use such as use of garden hoses, car washing, and garden irrigation
20	24	Priority 2. In addition to measures listed above, the Consent Holder restricts pipeline pressures and/or supply times for water, and/or use alternative water supplies or methodologies.
15	19	Priority 1. In addition to the measures listed above, the Consent Holder shall source alternative supplies or methodologies and reduce maximum take rate to be compliant with Condition 2.

1 NRC Hydrology flow monitoring site number 47110 Waiotemarama Stream at Waiotemarama Gorge Road u/s of intake, location co-ordinates 1739726E 6068033N (Note: This location may be changed to the new location associated with the flow measurement device required to be installed in accordance with Condition 4 of this consent.)

2 In accordance with Condition 2 of this consent.

16 The Consent Holder shall provide to the Regional Council written evidence of all those contingency measures implemented in accordance with the requirements of Condition 15 within one week of their implementation.

Advice Note: For the purposes of this condition, evidence may comprise copies of the notification of water bans provided to water users (media releases, leaflets, photographs of signage in the townships etc), provision of water reticulation leak detection measures and outcomes and water supply meter records obtained in accordance with the requirements of Condition 13 of this consent, and other water supply operational records.

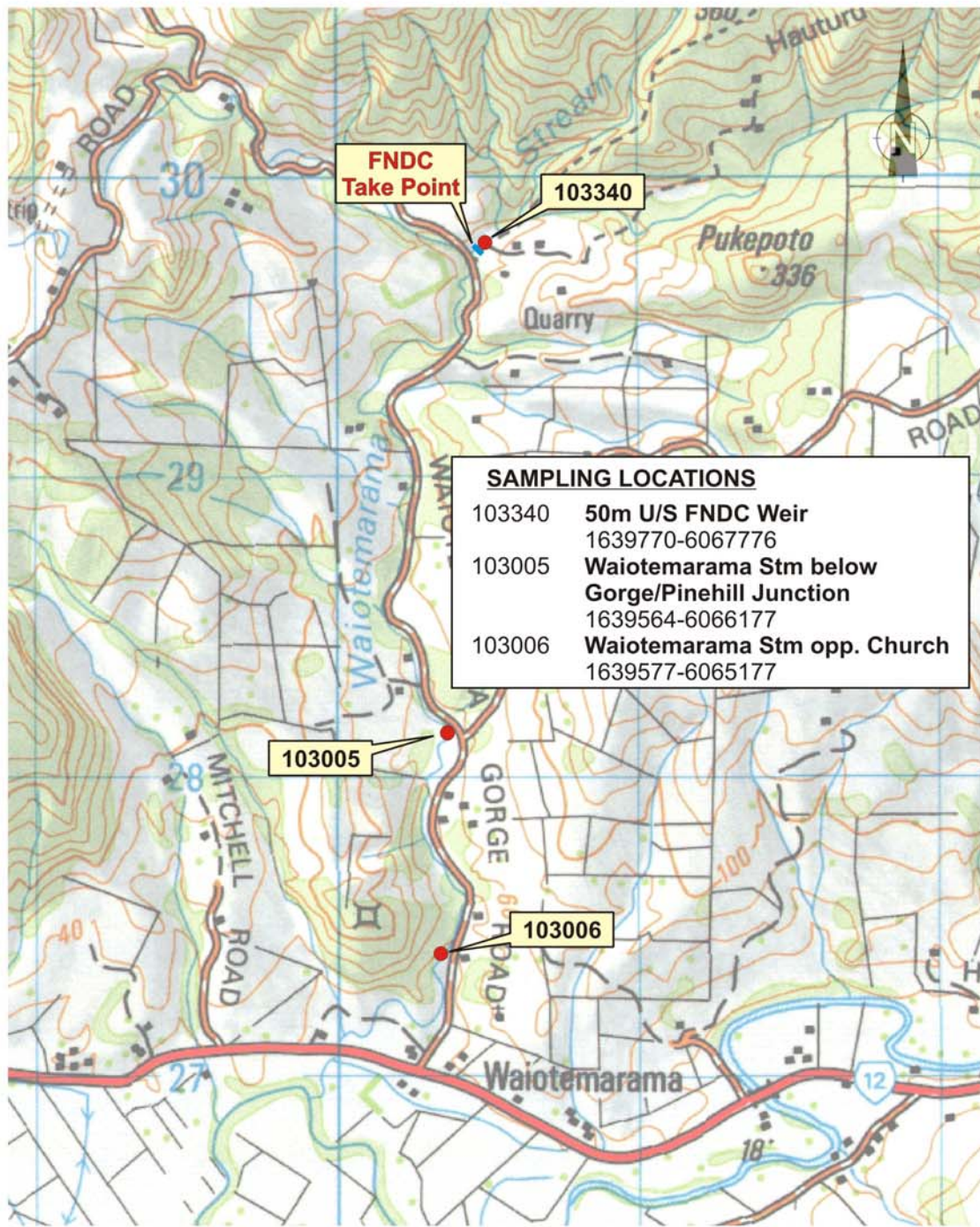
17 The Opononi-Omapere Public Water Supply Water Conservation Strategy shall be revised and updated to include the provisions of Conditions 13, 14, 15, and 16 of this consent. In addition, the Opononi-Omapere Public Water Supply Water Conservation Strategy shall be revised to include the provisions of the District Wide Water Conservation Strategy and the provisions of any proposed bylaw for installation of water tanks on private properties. The revised Water Conservation Strategy shall be provided to the Regional Council within 12 months of the date of commencement of this Consent.

- 18 The Consent Holder shall forward to the Regional Council within 18 months of the date of commencement of these consents, an Operation and Maintenance Programme for the Opononi-Omapere Public Water Supply system. The Operation and Maintenance Programme shall cover all aspects of the water supply operations, including maintenance of the water intake structures and screens, annual certification of all water meters by a suitably qualified person, reticulation network maintenance, and leak detection monitoring and maintenance, as required by Condition 13. Any changes to the Operations and Maintenance Programme shall be agreed between the Consent Holder and the Regional Council.
- 19 Maintenance and operation of the water supply system shall be carried out in accordance with the Operation and Maintenance Programme submitted in accordance with Condition 18. However, if there are differences or apparent conflict between these documents and any conditions of this consent, then the conditions of consent shall prevail. The Consent Holder shall supply to the Regional Council by 1 May each year, and also immediately on written request by the Regional Council, an annual report detailing the monitoring, inspection and maintenance undertaken on the water supply system during the preceding year, 1 April to 31 March.
- 20 The Consent Holder shall, for the purpose of discussing matters relating to this consent, form a community liaison group consisting of representatives from the Pakanae, Kokohuia, Waiwhatawhata and Waimamaku Marae (Nga Marae O Te Wahapu), and also a duly appointed representative from each of the Omapere, Opononi and Waiotemarama communities. The Consent Holder shall hold a meeting with the liaison group not less than once every year to discuss matters related to these consents. The meeting shall only be held if a representative(s) of the community liaison group request a meeting with the Consent Holder. If such a request is made, then the Consent Holder shall organise a meeting at a local venue for members of the community liaison group to attend, and invite all other representatives of the community liaison group. The meeting shall be held at a time convenient for the majority of the community liaison group.
- 21 The Consent Holder shall, within six months of the date of commencement of these consents, forward to the Northland Regional Council's Monitoring Senior Programme Manager a list of all existing connections to the Omapere and Opononi Public Water Supply System that are outside the townships of Omapere and Opononi, as defined by the operative Far North District Council Plan. In the event that there are no existing connections to the system outside of the townships of Omapere and Opononi, the Consent Holder shall notify the Northland Regional Council's Monitoring Senior Programme Manager in writing of this fact within six months of the date of commencement of these Consents.
- 22 The Regional Council may, in accordance with Section 128 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of these consents. Such notice may be served annually during the month of May. The review may be initiated for any one or more of the following purposes:
- (a) To deal with any adverse effects on the environment that may arise from the exercise of these consents and which it is appropriate to deal with at a later stage, or to deal with any such effects following assessment of the results of the monitoring of the consents and/or as a result of the Regional Council's monitoring of the state of the environment in the area.

- (b) To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment.
- (c) To provide for compliance with rules in any regional plan or policy statement or national environmental standard that has been made operative since the commencement of the consent.
- (d) To deal with any inadequacies or inconsistencies the Regional Council considers there to be in the conditions of these consents, following the establishment of the activity the subject of the consents.
- (e) To deal with any material inaccuracies that may in future be found in the information made available with the application. (Notice may be served at any time for this reason.)
- (f) To amend the maximum volume to be taken specified in Condition 1.
- (g) To amend the continuation flow specified in Condition 2.

The Consent Holder shall meet all reasonable costs of any such review.

EXPIRY DATE: 31 AUGUST 2026



SAMPLING LOCATIONS	
103340	50m U/S FNDC Weir 1639770-6067776
103005	Waiotemarama Stm below Gorge/Pinehill Junction 1639564-6066177
103006	Waiotemarama Stm opp. Church 1639577-6065177



RESOURCE CONSENT CON20040436901
for
Far North District Council
Sampling Sites
Waiotemarama

Scale:	N.T.S.
Drawn:	CNA 09/09
App'd:	
Plan No.	4162A

SCHEDULE A

Monitoring Programme for Resource Consent 4369

Resource Consent 4369 shall be monitored in accordance with the following monitoring programme.

1.1 Monitoring Sites

Monitoring shall be conducted at or about the following sites, as shown on attached NRC plan number 4162A:

(Note: all location co-ordinates in this document refer to Geodetic Datum 2000, New Zealand Transverse Mercator Projection.)

Sampling Site	Location Description
1. NRC Site No. 103340, "Waiotemarama Stream at U/S FNDC Take (Weir) 50 metres" Location Co-ordinates 1639770E 6067776N.	Approximately 50 metres upstream of FNDC intake structure.
2. NRC Site No. 103005, "Waiotemarama Stream below Gorge/Pinehill Junction" Location Co-ordinates 1639564E – 6066178N	North of the junction between Gorge Road and Pinehill Road, approximately 100 metres from the split in the river.
3. NRC Site No. 103006, "Waiotemarama Stream at Opposite church" Location Co-ordinates 1639577E 6065177N.	Approximately 25 metres upstream from the ford crossing which is itself opposite the church on the other side of the Waiotemarama Gorge Road.

Note: The monitoring sites for which invertebrate monitoring was conducted on this stream in February 2006 are considered to be consistent with Sampling sites 1 and 3 in this table.

1.2 Water Quality Monitoring and Associated Flow Measurements

When flows downstream of the point of taking are reduced to below 14 litres per second (either naturally or as a result of pumping), dissolved oxygen (DO), temperature, pH and electrical conductivity shall be monitored continuously for a period of not less than 48 hours. For the purposes of this monitoring, "continuous" shall involve measurements of the parameters stated at not less than 15 minute intervals for the entire deployment period. The continuous DO, pH, temperature and electrical conductivity monitoring shall be conducted at sites 1, 2 and 3 described in Section 1.1. The device used to measure and record the continuous data shall be calibrated according to the manufacturer's instruction and shall include verification by way of field measurements of DO, temperature, pH and electrical conductivity at the time of deployment and also at the time of retrieval.

In addition, the flow in the Waiotemarama Stream shall be measured, using standard flow gauging methods (with an accuracy of +/- 8 %), at sites 1, 2 and 3 described in Section 1.1 at the time the water quality measurements commence and also at the end of the 48 hour deployment period. The Consent Holder shall also record the times when water is taken and the instantaneous rate of taking during the two day measurement period.

In addition, triplicate "grab" water samples shall be obtained from sites 1, 2 and 3 in Section 1.1 and analysed for the following parameters:

- Dissolved oxygen (DO)
- Temperature
- Total phosphate
- Dissolved reactive phosphate
- Total nitrogen
- pH
- Conductivity
- Suspended solids
- Faecal coliforms
- Alkalinity

The water quality monitoring required by Section 1.2 of Schedule A shall be undertaken on at least one occasion during the first three years of the exercise of the consents. The results of this monitoring may be used to review the continuation flow that is required to be maintained downstream of the point of taking as specified in Condition 2.

1.3 Invertebrate Monitoring

The Consent Holder shall undertake macroinvertebrate monitoring at sites 1, 2 and 3 described in Section 1.1 on at least 2 occasions each year. Monitoring is to be undertaken in accordance with the “*Protocols for sampling macroinvertebrates in wadeable streams*” (New Zealand Macro invertebrate Working Group Report No. 1, November 2001). Monitoring shall be undertaken during:

- **Winter:** During either June, July or August; and
- **Summer-Autumn:** During either January, February or March, following a period of at least three weeks during which no significant rain has fallen. For the purposes of this monitoring “significant rain” is defined as greater than 15 millimetres of rain falling in 24 hours, as measured at the Regional Council’s Recorder Site Number 535412 – Waitemarama at Toorenburg.

1.4 Reporting

The results of the continuous DO, temperature, pH and electrical conductivity monitoring and the results of the “grab” water monitoring undertaken according to Section 1.2 (including the calibration and field verification data), and the results of the macro invertebrate monitoring undertaken according to Section 1.3 shall be forwarded to the Regional Council within one month of the results being available, and also immediately on written request by the Regional Council.

10.3 Waiarohia Consent

Pursuant to Section 104B of the Act, the Committee **GRANTS** consent subject to conditions imposed pursuant to Section 108.

CON20040735601 **Notified Replacement**

FAR NORTH DISTRICT COUNCIL, PRIVATE BAG 752, KAIKOHE 0440

To undertake the following activities on Lot 1 DP 209937 Blks VI and VII Hokianga SD, Pt Maungaroa B Block DP 1541 Blk VII Hokianga SD, and Pt bed of Waiarohia Stream adjacent to Pt Lot 1 DP 209937 Blks VI and VII Hokianga SD at or about location co-ordinates 1636341E 6069268N (*Note: all location co-ordinates in this document refer to Geodetic Datum 2000, New Zealand Transverse Mercator Projection*) associated with a public water supply servicing the townships of Omapere and Opononi, as defined by the operative Far North District Council Plan, and all existing connections to this system that are outside these townships, as at the date of commencement of these consents:

- (01) **Water Permit:** To take water from a reservoir behind a dam structure located on the bed of the Waiarohia Stream.
- (02) **Land Use Consent:** To use and maintain a dam structure on the bed of the Waiarohia Stream.
- (03) **Water Permit:** To dam the Waiarohia Stream.
- (04) **Land Use Consent:** To remove gravel from the bed of the Waiarohia Stream associated with the maintenance of a reservoir and water supply intake.
- (05) **Land Use Consent:** To deposit gravel on the bed of the Waiarohia Stream.
- (06) **Discharge Permit:** To discharge contaminants to water associated with gravel extraction and deposition on the bed of the Waiarohia Stream.
- (07) **Land Use Consent:** To clear riparian vegetation and associated earthworks for access to the Waiarohia Stream associated with the maintenance of a reservoir and water supply intake.

Subject to the following conditions:

01–03: Dam and Water Take

- 1 The quantity of water to be taken shall not exceed 750 cubic metres in any consecutive twenty-four hour period.
- 2 Notwithstanding any other conditions, the exercise of these consents shall not result in the flow of the Waiarohia Stream, as measured 50 metres downstream of the dam at or about location co-ordinates 1636341E 6069268N, being reduced below 0.3 litres per second.
- 3 The Consent Holder shall maintain a meter with an accuracy of $\pm 5\%$ that can measure the instantaneous rate of taking and the daily volumes of water taken from the stream.
- 4 The Consent Holder shall, on all days that water is taken, keep permanent written and electronic records of the following:
 - (a) The instantaneous rate of taking;

- (b) The duration and quantities of water taken.
- 5 The Consent Holder shall forward to the Regional Council by the 15th of each month a copy of the records required by Condition 4 for the preceding calendar month. In addition, the Consent Holder shall forward to the Regional Council a copy of all requested records immediately on written request by the Regional Council.
 - 6 A screening device shall be maintained on the intake structure that shall limit the intake velocity across the screen to less than 0.3 metres per second. The screen shall have no holes or slots with a diameter or width greater than 5 millimetres.
 - 7 The dam structure and intake structure(s) shall be adequately maintained so that they operate effectively at all times and their structural integrity is not compromised.
 - 8 The dam structure and reservoir shall not be modified without the prior written approval of the Regional Council.

04–07: Maintenance and Stream Works

- 9 The quantity of gravel taken from the stream bed shall not exceed 3000 cubic metres in any 12 month period, between 1 May and 30 April of the following year.
- 10 The Consent Holder shall within each 12 month period (1 May to 30 April) place, as a minimum, the greater volume of either 100 cubic metres of extracted gravel, or 10 percent of the total volume of gravel extracted within that 12 month period, on the bed of the Waiarohia Stream immediately downstream of the dam. This material shall be spread evenly over the streambed for the purpose of providing streambed protection and habitat enhancement.

Advice Note: *In order to provide ongoing armouring of the stream and replenish and mitigate the adverse effects of the dam on aquatic biota habitat downstream of the dam structure, the deposition of this volume of gravel downstream of the dam annually is still required to continue even in the event the reservoir is no longer used as a water supply source or regularly maintained by gravel extraction upstream of the dam.*

- 11 The Consent Holder shall notify the Regional Council in writing of both the date gravel extraction from the dam reservoir and placement of gravel on the stream bed below the dam is intended to commence at least two weeks before that date.
- 12 At least two weeks prior to gravel extraction and/or deposition, and associated works in the riparian management zone, is intended to commence, the Consent Holder shall notify all those who take water from the Waiarohia Stream downstream of the location of the activity for the purposes of enabling them to obtain alternative water sources for the duration of the proposed activity if necessary.
- 13 During the maintenance activities, the Consent Holder shall ensure that gravel, soil, debris and detritus associated with the works and material not re-deposited in the stream is not stockpiled or placed in a position which would permit it to enter the watercourse.
- 14 No storage, mixing of fuels, oils, agrichemicals or other similar substances shall take place in the Riparian Management Zone.

- 15 Refuelling and servicing of machinery shall not be carried out in such a way that soil or water at the site is contaminated. Where an accidental spillage to land occurs all contaminated soil shall be collected and removed to a disposal site that is legally able to accept such material. Where an accidental spillage to water occurs, the Consent Holder shall:
- (a) Immediately take such action, or execute such work as may be necessary, to stop and/or contain such escape;
 - (b) Immediately notify the Regional Council by telephone of an escape of contaminant;
 - (c) Take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the escape; and
 - (d) Report to the Regional Council's Monitoring Manager in writing within one week on the cause of the escape of the contaminant and the steps taken or being taken to effectively control or prevent such escape.
- 16 Vegetation clearance and earthworks undertaken in the riparian management zone of the Waiarohia Stream and reservoir as part of these consents shall be the minimum necessary for track and road maintenance and maintenance of the reservoir and water intake structure.
- 17 The Consent Holder shall ensure that there are no permanent erosion features such as sheet wash, slips, slumps, rills and gullies, blow outs and stream bank erosion resulting from the exercise of these consents. In the event that an erosion feature such as sheet wash, slips, slump, rill and gullies, blow outs and stream bank erosion occurs as a result of the exercise of these consents, the Consent Holder shall, as soon as is reasonably practicable, undertake such remediation measures that will prevent further extension of the erosion feature and enable the return of the stream to the form prior to the presence of the erosion feature.
- 18 The Consent Holder shall ensure that there are no flooding effects on adjacent property resulting from the exercise of these consents. In the event that flooding effects on adjacent property occurs as a result of the exercise of these consents, the Consent Holder shall, as soon as is reasonably practicable, repair any resultant damage, and undertake such remediation measures to prevent further flooding effects associated with the exercise of these consents.
- 19 No discharge of sediment or sediment laden material associated with these activities shall occur for more than five consecutive days, and there shall be no conspicuous change in colour, nor shall there be any reduction in visual clarity by more than 40 percent, in the Waiarohia Stream at or beyond 40 metres downstream of the activity at any time after 24 hours following completion of that activity.
- 20 The Consent Holder shall provide to the Regional Council annually by 1 May, and also immediately on written request, a report detailing the gravel extraction and placement work undertaken in the previous calendar year, including the volumes extracted and placed downstream of the dam.

General Conditions

- 21 The Consent Holder shall undertake leak detection measures to minimise reticulation water losses within its Opononi-Omapere Public Water Supply system. The leak detection measures shall include, as a minimum, the following:

- (a) Flow meter installation ports located at all of the following water supply main locations which are capable of either temporary or permanent flow meter installation for leak detection purposes:
- (i) Both ends of the rising main from the intake to the raw water storage reservoir.
 - (ii) Both ends of the gravity main from the raw water storage reservoir to the water treatment plant.
 - (iii) Both ends of the Pumping Main from the Water Treatment Plant to the treated water reservoir.
 - (iv) At the outlet from the Treated water reservoir to the reticulation network.
- (b) Flow meters shall be installed at the locations detailed in 21(a) and shall, as a minimum, be read during the first week of every month during the period 1 December to 30 April. A record of the meter readings shall be kept and a comparison of the quantities of water at each stage in the water supply system undertaken to determine the location of potential water losses in the system. The losses within the reticulation network may be calculated from the difference between the treated water reservoir and the sum of the water use of connections to the network, as determined from flow meters installed on private properties within the area of benefit which are already read for rating purposes.
- (c) In the event that significant difference is observed at any of the stages of the water supply system as defined by Condition 21(a) and the reticulation network to private properties the Consent Holder shall immediately undertake further investigation to determine the cause of the loss, and carry out all necessary repairs as soon as practicable.

Advice Note: *For the purpose of this condition "significant difference" is defined as being a 20 percent or greater difference between the volume of water entering the stage of the system compared to the volume of water exiting the stage of the system. The cumulative losses from all parts of the reticulation system should not exceed 20 % of the total production volume.*

- 22 A report detailing the results of monitoring required to be undertaken in accordance with the requirements of Condition 21 shall be forwarded to the Regional Council annually, and also immediately upon written request by the Regional Council.
- 23 The Consent Holder shall forward to the Regional Council within 18 months of the date of commencement of these consents, an Operation and Maintenance Programme for the Opononi-Omapere Public Water Supply system. The Operation and Maintenance Programme shall cover all aspects of the water supply operations, including maintenance of the water intake structures and screens, annual certification of all water meters by a suitably qualified person, reticulation network maintenance, and leak detection monitoring and maintenance, as required by Condition 21. Any changes to the Operation and Maintenance Programme shall be agreed between the Consent Holder and the Regional Council.

- 24 Maintenance and operation of the water supply system shall be carried out in accordance with the Operation and Maintenance program submitted in accordance with Condition 23. However, if there are differences or apparent conflict between the certified Operation and Maintenance Programme and any conditions of this consent, then the conditions of consent shall prevail. The Consent Holder shall supply to the Regional Council by 1 May each year, and also immediately on written request by the Regional Council, an annual report detailing the monitoring, inspection and maintenance undertaken on the water supply system during the preceding year, 1 April to 31 March.
- 25 The Consent Holder shall, for the purpose of discussing matters relating to this consent, form a community liaison group consisting of representatives from the Pakanae, Kokohuia, Waiwhatawhata and Waimamaku Marae (Nga Marae O Te Wahapu), and also a duly appointed representative from each of the Omapere, Opononi and Waitemarama communities. The Consent Holder shall hold a meeting with the liaison group not less than once every year to discuss matters related to these consents. The meeting shall only be held if a representative(s) of the community liaison group request a meeting with the Consent Holder. If such a request is made, then the Consent Holder shall organise a meeting at a local venue for members of the community liaison group to attend, and invite all other representatives of the community liaison group. The meeting shall be held at a time convenient for the majority of the community liaison group.
- 26 The Consent Holder shall, within six months of the date of commencement of these consents, forward to the Northland Regional Council's Monitoring Senior Programme Manager a list of all existing connections to the Omapere and Opononi Public Water Supply System that are outside the townships of Omapere and Opononi, as defined by the operative Far North District Council Plan. In the event that there are no existing connections to the system outside of the townships of Omapere and Opononi, the Consent Holder shall notify the Northland Regional Council's Monitoring Senior Programme Manager in writing of this fact within six months of the date of commencement of these Consents.
- 27 The Regional Council may, in accordance with Section 128 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of these consents. Such notice may be served annually during the month of May. The review may be initiated for any one or more of the following purposes:
- (a) To deal with any adverse effects on the environment that may arise from the exercise of these consents and which it is appropriate to deal with at a later stage, or to deal with any such effects following assessment of the results of the monitoring of the consents and/or as a result of the Regional Council's monitoring of the state of the environment in the area.
 - (b) To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment.
 - (c) To provide for compliance with rules in any regional plan or policy statement or national environmental standard that has been made operative since the commencement of the consent.
 - (d) To deal with any inadequacies or inconsistencies the Regional Council considers there to be in the conditions of these consents, following the establishment of the activity the subject of the consents.

- (e) To deal with any material inaccuracies that may in future be found in the information made available with the application. (Notice may be served at any time for this reason.)
- (f) To amend the continuation flow specified in Condition 2 of these consents.
- (g) To amend the maximum volume to be taken specified in Condition 1 of these consents.

The Consent Holder shall meet all reasonable costs of any such review.

EXPIRY DATE: 31 AUGUST 2026

- Advice Notes:**
1. *The Consent Holder is reminded that any issues relating to the safety of the dam structure must comply with the provisions of the Building Act 2004.*
 2. *In the event that the dam and reservoir is no longer required as part of the Opononi-Omapere water supply system, the Consent Holder should consider reinstatement of the natural flow and fish passage beyond the dam structure, or removal of the dam structure, in order to improve the biological diversity of the stream.*

REASONS FOR THE DECISION

The proposals are discretionary and controlled activities, and they are not contrary to the objectives and policies contained in the relevant planning documents that these applications have been evaluated under. Granting of consents to these proposals is consistent with Part 2 of the Resource Management Act 1991.

The proposals, as consented, will promote the sustainable management (Section 5 of the Resource Management Act) of natural and physical resources while enabling people and communities to provide for their social, economic and cultural well-being. More specifically it will allow the applicant to continue to provide for the public water supply needs of the Opononi-Omapere Community. The actual and potential effects are considered to be mitigated through a number of measures in conditions of the consents as far as is practicable.

In granting the above applications the committee has given particular consideration to Sections 6 and 7 of the Resource Management Act including matters of national importance, and has taken into account the principles of the Treaty of Waitangi in accordance with Section 8 of the Act.

COMMENTARY ON CONDITIONS OF CONSENT

The Committee believe that conditions of the consent provide for, recognise and go some way to mitigate the issues raised by the submitters as far as is practicable.

The Applicant requested the removal of a number of proposed consent conditions, which, if approved would provide for the status quo to continue. However, the conditions have been specified in order to avoid, remedy, or mitigate adverse effects that may result from the activities. In addition it is considered that the conditions of consent as granted will enable better compliance monitoring by the Regional Council.

The Committee had the following comments regarding specific conditions of the consents:

(a) Condition 1 Waioitemarama Stream – Maximum Take Rates and Take Volume

The average daily take volume of 550 m³ per day as included in Condition 1(a) has been accepted by the applicant.

A maximum take volume of 750 m³/day has been included in Condition 1(c) as it is considered that this volume is adequate to meet the current and future peak demand requirements for this community, in concert with the volumes available from the Waiarohia Stream and the existing raw and treated water storage capacity of the water supply.

The average daily take rate from the stream of 6.4 L/s in Condition 1(b) has been included to ensure that pumping to abstract the average abstraction volume of 550 m³ is undertaken at the lower take rate over a longer period of the day, rather than at higher take rates over shorter periods of the day, because maintaining the maximum flow in the stream (by minimising the take rate) is considered to be one of the key mitigation measures for this consent, and will provide the greatest protection for the stream. Similarly Condition 1(d) is consistent with the maximum abstraction volume of 750 m³ taken over a 24 hour period, and ensures that the maximum take rate allowed from the stream under this consent is maintained as low as possible during

the times of peak demand, which tend to coincide with the warmer summer temperatures when the stream is subject to greater environmental risk.

(b) Condition 2 of the Waioitemarama Consent – Continuation Flow

Policy 9.5.5 of the Regional Water and Soil Plan for Northland requires that flows in small streams of high ecological value such as the Waioitemarama Stream are not reduced below their MALF as the result of the water take. Policy 9.5.8 allows for the consideration of alternative lesser minimum flows where it can be demonstrated that lesser flows do not result in adverse effects and cumulative adverse environmental effects on the stream. The Committee considers that the monitoring results obtained to date do not demonstrate that the reduction of the flow in the Waioitemarama Stream to flows significantly below the MALF as undertaken in accordance with the previous consent are not resulting in adverse environmental effects on the Waioitemarama Stream as required by Policy 9.5.8.

Therefore, it is proposed to raise the continuation flow required for this consent to be consistent with the requirements of the RWSP, to ensure adequate protection for the stream, to mitigate the effects of the water take on this high quality stream. It is considered that appropriate management of the existing water takes, and the existing storage capacity, will enable abstraction of sufficient volume to service the requirements of the Public Water Supply and maintain a higher continuation flow.

It is acknowledged that the measurement of the MALF is not an exact science, and that the Consent Holder does not agree with the estimation provided by NIWA. Therefore, the flow proposed for Condition 2 (b) of the Consent is consistent with the MALF estimated by the Consent Holder plus the downstream water user requirements. A lead in time of six years is provided in Condition 2 to allow the Consent Holder to make any operation and management changes to the water supply that may be required, and/or allow for the implementation of other alternative water conservation methodologies. During the six year lead in time, the current continuation flow of 10 L/s is to be maintained in accordance with Condition 2(a). During this six year time frame, flow data will be obtained that will enable a revised estimate of the MALF to be obtained, and this will be reviewed along with the additional monitoring data obtained during this time, prior to implementation of the increased continuation flow required by Condition 2(b). If the revised MALF is found to be significantly different to the 14 L/s currently included in Condition 2(b), then this condition may be revised in accordance with Section 128 of the Act.

Security of supply concerns expressed by the Consent Holder in regards to Conditions 1 and 2 may be addressed by judicious management of the abstractions from the existing two water sources covered by these consents and the active use of the existing raw and potable water storage components of the Opononi-Omapere Public Water Supply, being 4,450 m³ in total, or 8.5 days average daily demand in 2026. Policies 9.5.16-18 of the RWSP covers circumstances in the event of serious temporary water shortages where non-compliance with this condition can occur, after significant water conservation measures have already been implemented, to allow for public health maintenance.

(c) Condition 4 Waioitemarama Consent – Flow Recorder Device Accuracy

The accuracy required by Condition 4 for the continuous flow measurement device has been reduced from ± 2 to ± 5 to allow the Consent Holder greater flexibility in the design and construction of this device, to account for the potential constraints associated with this site.

(d) Condition 11 Waioitemarama Consent – Reporting of Water Use and Flows

The frequency of reporting the flow records to the Regional Council has been reduced from weekly to fortnightly. The objections by the Applicant that the conditions are onerous and would require extra staff is not supported as most of the information specified in the conditions can be automatically collected by the continuous flow recorder and appropriate software and telemetry systems.

(e) Condition 13 Waioitemarama (CON4369) and Condition 21 Waiarohia (CON7356) – Leak Detection

Active leak detection is considered to be a mitigation measure for these consents and is required to minimise the historic high water losses associated with this community water supply. Minimisation of water losses is considered to be one of a number of key methods by which the reported problems associated with this community water supply may be solved. Reduction of the demand will enable a reduction of the reliance on the run of stream takes, and enable higher flows to be maintained in the streams. The leak detection measures and reporting have been included as a specific condition of consent to ensure regular proactive leak detection is undertaken, and to enable compliance monitoring by the Regional Council staff.

(f) Conditions 15 and 16, Waioitemarama Consent – Water Shortage Contingency Measures

The water shortage contingency plan is considered to be a mitigation measure for the protection of this ecologically valuable stream, and has therefore been included as a condition of the consent. It will ensure proactive management of the community water supply in preparation for low flow periods, and Condition 16 regarding reporting will enable compliance monitoring by the Regional Council.

(g) Conditions 20-21 Waioitemarama Consent and Condition 25-26 Waiarohia Consent – Community Liaison Group and Area of Benefit

These conditions requiring formation of a community liaison group in a similar manner to the group set up for the Consent for the Opononi-Omapere community wastewater treatment plant, and also limiting the area of benefit for the community water supply to those areas as current at the time of issue of these consents have been included in response to requests by submitters, and the Consent Holder has indicated agreement with their inclusion.