Hearing Committee Report and Decision on applications by Normanby Power Limited for three resource consents to recommission the Normanby hydro scheme

Taranaki Regional Council Private Bag 713 STRATFORD

11 July 2008

Report and decision
of a Committee of the Taranaki Regional Council which heard,
commencing at 9.00 am on 9 June 2008
at the Taranaki Regional Council offices, Stratford,
three resource consent applications by Normanby Power Limited.

The applications relate to the damming of water, taking and use water, and use of a weir and ancillary structures in the Waingongoro River for hydroelectric generation purposes. The applications, made in accordance with the Resource Management Act 1991 ("the Act"), were lodged with the Taranaki Regional Council and referenced as 3554, 3555 and 4558.

Present: Taranaki Regional Council Committee

Cr David Lean [Chairperson]

Cr Moira Irving

Applicant: Normanby Power Limited

Greg Scott Applicant
Jim Scott Applicant
Garry Venus Consultant
John Auld Legal Counsel

Consent Authority: Taranaki Regional Council

Colin McLellan Consents Manager
Kimberley Hope Scientific Officer
Fiona Jansma Scientific Officer
Darlene Ladbrook Senior Consents Administration Officer

Janette Harper Consents Administration Officer

Submitters in attendance:

Ruahine Whitewater Canoe Club Craig Peters
Fish and Game New Zealand Allen Stancliff
Daren Smith

NZ Recreational Canoeing Association
Nick Collins
New Plymouth Kayak Club Inc
Nick Collins
Okahu/Inuawai & Kanihi Umutahi me etehi Hapu Mere Brooks
Kaitiaki Adventures
Chris Luke
Bryan Morris
Scott Grieve [legal counsel]
Director General of Conservation
Logan Brown

Submitters not in attendance:

Riverside Trust & Mack Transport Limited
Parininihi Ki Waitotara Incorporation
Auckland University Canoe Club
Paul Laurence

Description of Proposed Activity

- 1. Normanby Power Limited ['NPL'] proposes to recommission the Normanby Power Hydroelectric Scheme on the Waingongoro River, located on Normanby Road, Okaiawa, using a combination of existing infrastructure and modern equipment.
- 2. Normanby Power Limited has lodged three applications with the Taranaki Regional Council [Council] for the proposal:
 - Application 3554 [consent 2299-3]: to dam the Waingongoro River with a 6 metre [m] high concrete weir for hydroelectric power generation purposes [Water Permit];
 - Application 3555 [consent 6558-1]: to take and use water from the Waingongoro River for hydroelectric power generation purposes [Water Permit]; and
 - Application 4558 [consent 7078-1]: to erect, place, use and maintain a concrete weir and ancillary structures in the Waingongoro River; and to undertake excavation and disturbance of the river bed that is directly associated with that activity, for hydroelectric power generation purposes [Land Use Consent].
- 3. The original Normanby scheme was commissioned on the Waingongoro River in 1902, and operated until 1967 when it was abandoned after several major flood events. The scheme is located approximately 2.5-3 km east of Okaiawa, and about 3-3.5 km northwest of Normanby.
- 4. The scheme, centred on a 3.1 km long meandering loop of the Waingongoro River [the Normanby Loop], used a 33 m wide and 6m high weir on the northern side of Normanby Road to divert water via a 1.8 m diameter tunnel to the powerhouse on the southern side of the road. The water was then discharged from the powerhouse back in to the Waingongoro River [Figure 1].
- 5. The new scheme would essentially be the same as the old one. The proposed recommissioning would involve taking water from the pond behind the weir, through a new screened intake structure to the existing tunnel, which would be relined. From the tunnel, which crosses under Normanby Road, water would enter a penstock and be discharged, back into the Waingongoro River approximately 3.1 km downstream from where it was taken.
- 6. The Council received applications 3554, 3555 and 4558 on 10 February 2005, accompanied by an Assessment of Environmental Effects [AEE] prepared by NPL's consultant MWH. Application 3554 is to renew an existing consent, and applications 3555 and 4558 are for new consents. Processing of all the applications was delayed under section 37A(2)(b) of the Act on 10 February 2005 to allow NPL to undertake additional consultation with interested and affected parties.
- 7. Following a review of the AEE, further information was also requested on 26 September 2005 pursuant to section 92 of the Act, and resulted in a revised AEE prepared by NPL's consultant, ArgoEnvironmental Limited [Normanby Power Ltd, 2006], being submitted on 21 December 2006 and further additional information regarding fish passage provided on 27 March 2007.



Figure 1 Location and key features of the Normanby Power Ltd hydro-electric scheme

- 8. After notification NPL modified their application to include the provision of a residual flow of 3 m³/s over the weir at all times that the flow exceeded that rate.
- 9. Following discussions on requirements for landuse consents, the applications were deferred [in accordance with section 91 of the Act], on 9 May 2007, to determine if further applications were required to be lodged with the South Taranaki District Council [STDC]. STDC granted a certificate of compliance for those aspects of the NPL proposal under their jurisdiction on 7 August 2007.
- 10. STDC is also responsible for any dam safety considerations under the Building Act for the weir.

Regional Plan Rules Affected

- 11. The *Regional Fresh Water Plan for Taranaki* [RFWP] details Council policies in relation to fresh water. The RFWP has been operative since 2001. The RFWP is the statutory document containing Council policy and rules in relation to fresh water under the Act.
- 12. Application 3554 relates to the damming of the Waingongoro River and is a discretionary activity under Rule 20 of the RFWP.
- 13. Application 3555 relates to the taking and use of water from the Waingongoro River and is a discretionary activity under Rule 16 of the RFWP.
- 14. Application 4558 relates to the erection, placement, use and maintenance of a concrete dam and ancillary structures in the Waingongoro River and is a discretionary activity under Rule 64 of the RFWP.

Notification and Submissions Received

15. The application was publicly notified on 18 August 2007 in accordance with section 93 of the Act. A total of twelve submissions were lodged, all the submitters except one wished to be heard. All submissions opposed all applications, except that the Auckland University Canoe Club's submission only related to application 3555. Table 1 provides a summary of the submissions and the main issues raised.

 Table 1
 Summary of submissions

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Submitter	Summary of submission	
Craig Peters/Ruahine Whitewater Canoe Club [RWCC]	The loss of water over the dam and around the loop of the river to the power station would affect this stretch of river which is held in high regard for recreation and training for kayakers. The submission would be satisfied if water was allowed to continue to flow over the dam face and on down the natural riverbed.	
Parininihi Ki Waitotara Incorporation [PKW]	Are concerned that damming and raising the water level of the Waingongoro River will be caused by the generation, and the application should take into account PKW's upstream riverbank land ownership and the associated cultural significance, to protect PKW's property from flooding and inundation and the destruction of any culturally significant sites. The submission would be satisfied by ensuring that river levels are monitored to avoid land loss or injurious effect to any of the PKW land and culturally significant sites.	
Fish and Game New Zealand Taranaki Region	The Waingongoro River supports the most popular and productive trout fishery on the Taranaki ring plain. The river is also very highly rated for its recreational uses and values, and for its aesthetic and scenic values. F&GNZ is concerned that the recommissioning of the hydro-electric power station will result in unacceptable adverse effects. Specific concerns related to: residual flow effects; silt discharge during recommissioning and ongoing operation; mortality rates of fish drawn through intake screens and turbines; fish passage; compliance with policies of RFWP; riparian planting. F&GNZ requested the applications be declined.	

Submitter	Summary of submission
Auckland University Canoe	The proposed residual flow will have such a severe impact on the
Club Inc. [AUCC]	white-water features of the Waingongoro River that it will no longer
	be usable as a recreational resource. Progressive regrading and
	mobilisation of large volumes of silt deposited further upstream,
	resulting in the river running dirty for months. This would have an
	adverse effect on the enjoyment of this section and may negatively
	impact on the safety of kayakers on the river which rely on clarity to
	identify hazards.
	AUCC would like the white-water characteristics of the Waingongoro
	River to be preserved in their present state.
NZ Recreational Canoeing	The effect the power scheme will have on recreational use of the
Association [NZRCA]	Waingongoro River, especially kayaking. The submission would be
	satisfied by ensuring there will be adequate periods during which
	natural flows will be available to kayakers and other river users so as
	to maintain the river's value as a recreational destination.
Okahu/Inuawai & Kanihi	This river is of cultural significance to Hapu, whanau, and Marae of
Umutahi me etehi Hapu	the area and the proposed dam site and utilities will be on Wahi
	Tapu lands and sites. Concerned with: the destruction of historical
	Pa sites for money; roads in the area destroy areas of significance;
	the river is source to many indigenous fauna and flora, traditional kai
	sources & gathering places; detrimental and cumulative effects
	(actual and potential) to cultural integrity and natural environment;
	and the proposed duration of the consents.
New Plymouth Kayak Club	The effects on amenity values have not been assessed, are not less
Inc [NPKC]	than minor and can be mitigated. The submitter considers that
me [.u. xe]	negotiation to share this resource may be possible.
Kaitiaki Adventures	The establishment of the power station, landuse and reconstruction
ranam ravemence	of the power station, and water allocation will have a direct and huge
	impact on the Company's dam dropping business. The submission
	would be satisfied if the submitter were able to have continual
	access to the river, dam and water flow.
Bryan M Morris	In principal the concept of utilising the existing structure for the
,u	generation of power is supported. However, there are concerns
	about the potential impacts on the submitter's farm operation.
	Specific concerns relate to: access (full detail of works proposed;
	anticipated duration of works and ongoing access); weir
	(clarification on modifications are proposed); further details to
	determine whether there would be any effects on the farming
	operation upstream of the weir; riparian planting; sediment (location
	of the drying out bund and final deposition location).
	The submission would be satisfied once NPL has engaged in further
	discussions with the submitter to determine what impacts there
	would be on the farm operation and whether NPL could mitigate
	those impacts satisfactorily.
Christopher Peter Mack &	To see the area around the dam and Waingongoro River kept in a
Shona Maree Mack of	clean and tidy condition. Possibly fenced off to stop people dumping
Riverside Trust and Mack	rubbish etc. It will be a great achievement to see the dam being
Transport Limited	used once again for generating power. The submitter has some
	concerns over possible noise from the generator and if river levels
	get too low while generating, that stock will not cross the river where
	it is not fenced. Also concerned about the condition of the dam wall
	in years to come in regard to floods and the strength of the structure.
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Submitter	Summary of submission
Director General of	The Waingongoro River provides important habitat for native and
Conservation	introduced fish, and is important for its recreational, aesthetic and scenic values. The application has the potential to adversely affect the above values and also the natural character of the river and its margins. Specific concerns include: flow regime and residual flow; fish passage; water intake screen size; generation start-up and shutdown; release of sediment into the reaches of the loop; the proposed duration of the consent; compliance with policies and plans. The submitter seeks the applications be declined.
Paul Laurence	For Kaitiakitanga of our natural resources. The applications are transparent and inappropriate for a river of such 'Mana' and impact on many variables within our natural resources including on wairua, physical and sacredness of the site, ecosystems/habitats. The landuse is contrary to Article II of the Treaty of Waitangi, RMA, Fisheries Act, and Council directives for the next 10 years. Time to say no to exploitation of out environment in Taranaki. The submitter wishes the applications be declined as the environment comes first and proposed alternative power generation via biomass.

Pre-hearing process

16. Four pre-hearing meetings were held to discuss the applications. Details of the pre-hearing meetings were reported in the Council Officers' Report and distributed with the hearing agenda.

The Hearing

Procedural Matters

- 17. The Chairperson, Cr David Lean, opened the hearing and introduced the members of the Committee [the Committee] and noted that Cr Tom Cloke had given his apology.
- 18. Cr Lean welcomed the applicant, submitters and Council staff and asked parties to introduce themselves.
- 19. Cr Lean also noted that the Committee had undertaken a site visit on 6 June 2008 and were familiar with the site and its general area.
- 20. Cr Lean outlined the hearing process, noting that submissions would be taken as read, but that submitters were welcome to amplify on any points they wished to. He also noted that the hearing was being recorded.

Officers' Report and other information

21. A report prepared by Council officers, in accordance with section 42A of the Act [the Officers' Report], had been sent to all parties on 5 June 2008. The Officers' Report included a recommendation to issue all of the consents, subject to conditions necessary to mitigate the adverse environmental effects.

- 22. The Officers' Report formed the basis for much of the evidence presented at the hearing. Consent conditions referred to in the evidence are consent conditions recommended in the Officers' Report.
- 23. In addition to the Officers' Report the Committee had been provided with a copy of the application, the assessment of environmental effects report, and further information that in most cases had been provided in accordance with agreements reached at pre-hearing meetings. In addition to the evidence presented at the hearing this information, therefore, was also available to the Committee to assist with determination of the applications.
- 24. Important conditions recommended in the Officers' Report were to mitigate the effects of the reduced flow on the 3.1 km reach between the weir and the power house discharge, known as the 'Normanby Loop'. These recommended conditions confirmed the residual flow of 3 m³ /s proposed by the applicant, but also required occasional additional flows to go over the weir to supplement the minimum flow for biological and recreational reasons. These additional flows were:
 - 'flushing flows' if there is a 30 day period when the flow over the weir has not exceeded 14 m³/s, NPL must allow that flow over the weir at the next opportunity;
 - 'release flows' if there is a 14 day period between 1 December and 31 March when the flow over the weir has not exceeded 6 m³/s, NPL must allow the entire flow [up to a maximum of 6 m³/s] to pass over the weir for three hours;
 - 'recreational flows' NPL must cease taking for up to three hours up to 12 times per year at the request of the New Zealand Recreational Canoeing Association.

Summary of Evidence Heard

Applicant's Evidence

- 25. **Mr John Auld** [Legal Council for NPL] summarised the history of the scheme, and the applications made by NPL. He submitted that the project utilises a renewable energy resource which would allow the use of natural and physical resources in a way that would enable people to provide for their social, economic, and cultural wellbeing.
- 26. Mr Auld also submitted that the applications also meet the relevant policy matters in section 7 of the Act, including statutory support for "renewable" generation, with even small hydro generators such as the one proposed becoming valuable to avoid the cost of more expensive thermal generation. He submitted that the project has many positive benefits and that the other effects will be largely avoided or at the very least mitigated by the recommended residual flow and flushing flow conditions. He concluded that the consents requested should be granted substantially as recommended.
- 27. **Mr Greg Scott** [Normanby Power Limited] summarised his experience and involvement in a number of hydro schemes in New Zealand. He also provided a description of NPL's proposal.

- 28. While commenting that matters of access could not be addressed through the consent process, Mr Scott stated that it was NPL's intention to continue to allow access across its land for recreational activities provided that people comply with the company's reasonable safety requirements.
- 29. Mr Scott stated that in general NPL was satisfied with the conditions of consent as recommended in the Officers' Report. However, NPL requested that the condition requiring measurement of the rate of taking be deleted for technical and cost reasons. He stated that the Doppler ultrasonic flow meters of the type required for this situation are reasonably sophisticated and not always reliable for reasons such as water turbidity.
- 30. Mr Scott also requested that the condition requiring electronic measurement and recording of the water level in the fish pass be deleted due to technical and practical difficulties. A water level recorded in the fish pass would require a dedicated power source which would be difficult to provide in a way which is safe and not subject to damage by flood or vandalism. The recorder would require calibration and servicing which would only be feasible with access from the far side [right bank] of the river where the company has no legal access. Further, it is not necessary to install such equipment as an operator will be on site ensuring that the fish pass is operating satisfactorily at all times. This visual inspection will be more reliable in ensuring the entire length of the fish pass is working correctly and not just that a certain volume of water is passing a particular point at the top of the fish pass. Mr Scott considered that the remaining conditions would be more than adequate as they place an on-going obligation on NPL to maintain and monitor the performance of the fish pass.
- 31. **Mr Garry Venus** [ArgoEnvironmental] outlined his experience and involvement in the NPL proposal. Mr Venus outlined the relevant sections of the Act which were applicable to the proposal and highlighted several issues in particular which are discussed below.
- 32. Mr Venus stated that the proposed activities were entirely consistent with the definition of sustainable management [Part II, section 5 of the Act]. Electricity is fundamental to assisting people and communities in providing their social, economic and cultural well being. The management of the proposed activities as set out in the application and supporting material, and as addressed by way of the comprehensive suite of proposed conditions set out in the Officers' Report, will ensure that the life supporting capacity of resources are safeguarded and adverse effects avoided, remedied or mitigated.
- 33. In respect of section 7(b) of the Act, the refurbishment of the Normanby Power Station represents efficient use and development of the physical resources represented by the weir structure itself. Efficiency would be enhanced because the electricity will go straight into the local grid, resulting in next to no line losses [compared to the Transpower grid].
- 34. Mr Venus highlighted the benefits of the proposed scheme with respect to section 7(j) of the Act. The NPL proposal will contribute to meeting New Zealand's increasing electricity demand. Hydro generation is also benign as regards air quality, avoiding the emission of contaminants into the air such as sulphur dioxide, nitrous oxide or carbon dioxide. The project, which would produce 4.3 GWh annually, could

- theoretically achieve market savings of around \$1.35 million per year [extrapolating from other hydro generation schemes] by enabling from time to time a cheaper form of generation to displace more expensive generation on offer.
- 35. In regard to section 7(i), the proposal will arguably have a positive effect on climate change, by being benign in respect of greenhouse gases. While the amount of CO₂ savings attributable to the NPL proposal is small in terms of the total reduction required, its significance lies in its contribution to the whole. Each reduction helps New Zealand to take a step towards achieving the Kyoto Protocol goal of reducing emissions to 1990 levels.
- 36. Mr Venus then summarised the potential effects of the proposal and discussed the mitigation measures proposed through the recommended special conditions. He concluded that the benefits of the proposal along with the conditions as set out in the Officers' Report provide an extremely high level of mitigation of potential environmental effects.
- 37. With respect to monitoring, Mr Venus noted that the proposed monitoring programme is arguably excessively comprehensive for such a small scale activity, but given the level of submitter interest such an approach is appropriate at the outset. Mr Venus recommended that once the project was established and the scale of effects had been confirmed, that provision be made to reduce monitoring intensity.
- 38. Mr Venus referred to recommended special condition 4 of consent 7078 relating to the restriction on the timing of instream works. He stated that the condition was too vague in respect of what criteria the Chief Executive might apply [when requesting a waiver to the timing] and proposed rewording the condition to provide for the consent holder to undertake works at any time if it can be demonstrated that the works will incorporate measures that will prevent unacceptable downstream discolouration.
- 39. Mr Venus also stated that the recommended consent duration is too short when consideration is given to the likely capital investment in the project and the provision for frequent reviews pursuant to section 128 of the Act. The review provisions provide the Council with sufficient controls to ensure that the project avoids, remedies or mitigates adverse effects from an ongoing perspective. Mr Venus requested that a maximum term of 35 years be considered for these consents.

Evidence of Submitters

Director General of Conservation

- 40. **Mr Logan Brown** summarised the key points of the original submission by the Director General of Conservation [DOC] and noted where there were still concerns. These are summarised below.
- 41. Mr Brown noted that while certainty had been provided with the proposed residual flow, the effect of retaining the proposed level of abstraction remained uncertain. Additional residual flow would provide more habitat for native fish species and the invertebrates which they rely on for food. Concern also exists over the effectiveness of the fish pass and Mr Brown noted the importance of monitoring.

- 42. Mr Brown noted that the recommended conditions specifically required a baffle made of treated timber to provide passage for lamprey past the weir. He requested that untreated timber be used instead as it was possible that treated timber may interfere with lamprey migration by masking chemical markers.
- 43. Mr Brown noted that recommended conditions provided for the intake screen to have a mesh size of 30 mm. He requested that the aperture be reduced to 20 mm because work conducted by NIWA has suggested that a screen mesh size of 30 mm would only exclude those eels larger than 1000 mm in length and would therefore only protect part of the migrating eel stock. Shortfin eels do not generally exceed 1000 mm in length.
- 44. His evidence was that the period when release flows are required should be extended to cover the period from 1 November to 31 May because long periods of low flow could occur at any time over this period.

Fish and Game New Zealand

- 45. **Mr Allen Stancliff** summarised the trout fishery and angling values of the Waingongoro River. Mr Stancliff provided evidence in relation to the proposed flow regime in the residual flow reach and discussed the mitigation measures through the release of flushing and recreational flows.
- 46. Mr Stancliff's evidence was that the flushing flows and release flows recommended by the Officers' Report would not have any significant effect on the modified flow regime.
- 47. Mr Stancliff agreed that the proposed flushing and recreational flows would be beneficial in maintaining water quality in the Normanby loop, but they would not provide any significant mitigation for the loss of invertebrate food producing habitat and trout feeding opportunity that will occur with the proposed reduction in median flow.
- 48. Mr Stancliff summarised the potential effects on invertebrates and stated that the additional flow releases would not occur frequently enough to maintain food production and help mitigate the loss of habitat as stated in the Officers' Report. In addition, the diversion of water through the power station and the presence of the weir would reduce invertebrate drift into the residual flow reach at normal and low flows. The weir and reservoir are already having a significant adverse effect on the quality and food value of invertebrates in the Normanby loop and recommissioning of the power station will only make this worse.
- 49. In relation to the effects of the proposed flow regime on trout, the assessment of habitat curves used for the prediction of rainbow trout habitat loss were discussed. While Mr Stancliff agreed that brown trout feeding opportunity would be reduced by 17%, he stated that rainbow trout feeding opportunity would be subject to the same reduction in feeding opportunity at median flow, rather than a minor loss of 4% if the most appropriate habitat curves presented in Jowett [2007] were used.

- 50. A reduction in food producing habitat and drift, and trout feeding opportunity is likely to cause a reduction in the average life supporting capacity of the Normanby loop and a decline in the number and size of brown and rainbow trout residing there, with consequent adverse effects on angling amenity values in one of the most popular angling reaches of the river.
- 51. Evidence on the effects of the proposed flow regime on periphyton [algae] growth was also presented. Mr Stancliff stated that reductions in water depths and velocities, and an increase in light reaching the riverbed that would occur with the 3 m³/s minimum flow, would cause periphyton proliferation in the Normanby loop.
- 52. During the first three months of the seven month angling season, flows would be much lower than normal. Anglers would be more visible to trout because of the reduced water depth and increased light penetration, making the fish more easily disturbed and less catchable.
- 53. Increased water temperatures can result in unsatisfactory catch rates and more frequent proliferation of periphyton in the reach to nuisance levels would increase fouling of anglers' lines, flies and lures and make wading dangerous. In conjunction with a reduction in the size and abundance of trout in the reach, these factors could decrease angling amenity values and make the reach less attractive for angling.
- 54. Mr Stancliff stated that with respect to the discharge of sediment during construction work and ongoing operation of the power scheme, he still had concerns about the effectiveness of the geo-fabric proposed to prevent fine sediment entering the river; the practicalities of the siphoning method proposed which is likely to result in the works taking longer than stated in the report; and there is still significant potential for large amounts of silt to be mobilised once the power station begins operation.
- 55. Mr Stancliff then discussed the social and economic values and noted that the scheme will produce only a small amount of electricity and these benefits are overstated. The scheme would provide enough electricity for 551 houses rather than the stated 5000. Mr Stancliff compared the electricity production from the scheme with consent applications currently being applied for by ALLCO Wind Energy to establish a wind farm [42-45 wind turbines] at Waverley. He noted that the estimated annual generation of 4.3 GWh at Normanby represents less than half of the production from one wind turbine. Wind power is also a renewable source of energy and is therefore a realistic alternative to the Normanby power scheme in terms of supply to the South Taranaki District and New Zealand.
- 56. Mr Stancliff then summarised the application in relation to the Act, Regional Policy Statement and Regional Freshwater Plan for Taranaki. Based on the evidence discussed above, he noted the following:
 - The granting of the applications with the recommended consent conditions is inconsistent with the Act, and Regional Policy Statement as there will be a reduction in the average life supporting capacity of the Normanby loop and adverse effects on the environment that will not be avoided, remedied or mitigated. The natural flow regime will not be maintained and enhanced as far as practicable. Further the use and development of a renewable energy source should not compromise the sustainable management of natural and physical resources.

- The applications are inconsistent with several policies of the RFWP. Policy 3.1.4 is weighted towards avoidance of effects in the Waingongoro River. The proposed flow regime will not achieve this. The benefits of the generation of power are only small and the positive recreational benefits from the use of the weir should also be recognised [policy 5.1.1(b)]. The use of existing structures for the generation of electricity cannot be properly viewed as mitigation for the adverse effects of the scheme [policy 5.1.1(c)].
- Under policy 6.1.2 the allocation of water is to be strictly limited in the Waingongoro River catchment. Mr Stancliff noted that this policy applied to the whole catchment even in the 3.1 km reach affected by the scheme and this is not just any reach of the river. In relation to policies 6.1.3 and 6.1.5-6.1.9, Mr Stancliff considered that, as stated in his evidence, the recommended conditions would not be sufficient to adequately mitigate the adverse effects of the scheme on the Normanby loop.
- 57. Mr Stancliff reiterated that the applications should be declined. However, if consents were granted, he requested several changes to the recommended conditions, as follows:
 - the residual flow should be increased to 3.5 m³/s in January, March and April and 4 m³/s during the months of May-December;
 - a flushing flow should be provided if it hadn't occurred for 14 days, instead of the 30 days recommended; and
 - the period that release flows occur should be from 1 November -30 April and they should be the full flow of the river, not a maximum of $6 \text{ m}^3/\text{s}$.
- 58. Mr Stancliff would support the recommended consent duration but would prefer to have provision for 3-yearly reviews [rather than 6-yearly].
- 59. He requested that a water level monitoring site be established downstream of the powerhouse discharge to ensure compliance with the maximum authorised discharge ramping rate.
- 60. Although the allowable effects of sedimentation in the Waingongoro River is supported, Fish and Game would prefer that the consent condition require that the discharge not give rise to an increase in turbidity of the river of more than 50% as determined using NTU.

BM Morris

- 61. **Mr Scott Grieve** presented legal submissions on behalf of **Mr Bryan Morris**, these submissions are summarised below.
- 62. Mr Morris farms the land on the right bank of the river beside the weir. In the past informal access has been provided to operators of the power scheme over Mr Morris's farm for various reasons. NPL has approached Mr Morris with a formal draft site access agreement however no agreement has been reached between the parties and there is no guarantee that any agreement will be reached.

- 63. He noted that access issues over private land are considered in the Officers' Report to be beyond the jurisdiction of this consent process. However, he submitted that access may still be required for works [including construction and maintenance of the fish pass], erosion control and removal of logs and debris that may become jammed on the weir or fish pass.
- 64. It is submitted that various consent conditions recommended in the Officers' Report would, if implemented, impose obligations on NPL to complete certain matters to achieve compliance with the conditions. He submitted that conditions should be such that the applicant knows with certainty what is required and can comply with them without having to acquire further rights and/or enter into unspecified agreements with adjoining landowners.
- 65. If compliance with a condition would involve infringement of the legal rights of third parties, the condition should not be imposed unless: all third parties affected, consent to the execution of the work and manner of its execution; or there is statutory power to execute the work. It was therefore submitted that the Committee must be satisfied that NPL can comply with consent conditions imposed without having to acquire further rights and/or enter into unspecified agreements with adjoining landowners such as Mr Morris.
- 66. In respect to riparian planting, it is noted that NPL has proposed to undertake riparian planting to help mitigate the effects of the scheme and such planting is encouraged. However, there are currently no recommended special conditions that expressly require NPL to complete such planting. Mr Grieve submitted that such conditions should be imposed, and include the provision for NPL for fence, plant and maintain the planting for the duration of the consent.
- 67. In response to a question from the Committee Mr Grieve stated that Mr Morris could be quite some way from any access agreement with NPL but that is not to say agreement would never be reached.
- 68. Photos of the erosion downstream of the weir were produced and explained. Mr Grieve noted that erosion issues were dealt with through recommended special conditions. He noted that twice in last 30 years the boundary fence has had to be realigned due to the bank eroding away, and that NPL owned an area of land on the right bank where the erosion was occurring.

Ruahine White Water Canoe Club

- 69. **Mr Craig Peters**, the president of the Ruahine White Water Canoe Club [RWWCC] and past president of the South Taranaki Canoe club, reiterated in his submission that the RWWCC were opposed to the diversion of water from over the Waingongoro weir and the result that this will have on the water levels downstream. He summarised the use of the weir and Normanby loop and noted that it was an area of high importance for recreational use by kayakers, canoeists and swimmers.
- 70. In particular he noted that the weir was held in high regard as a resource for building the confidence of kayakers, being a steep but safe drop. The section of the river below the dam is held in high regard because the water has features in it that need to be negotiated and rapids that are short and have pools at their base for kayakers to rest.

- The loop is also important for its ease of access. Mr Peters summarised the use of the area. He noted that in a country that holds adventure in the outdoors in high regard, it would be sad to lose such a valuable asset.
- 71. Mr Peters presented photos showing people kayaking over the weir and on the river. In response to a question Mr Peters said that he didn't know what the flow over the weir was in any of the photos. He did however say that it would be more than 3 m³/s and in the 'top photo' the depth would be 3-4 inches. In the 'bottom photo' the flow was 'flood conditions'.

New Plymouth Kayak Club and New Zealand Recreational Canoeing Association

- 72. **Mr Nick Collins**, representing the New Plymouth Kayak Club and the New Zealand Recreational Canoe Association, summarised his experience and involvement in river recreation.
- 73. Mr Collins pointed out 'errors of fact' in the Officers' Report. Specifically he told the Committee that none of the submitters that he represented had agreed to the any consent conditions. He said that all proposals to mitigate the effects on kayaking were rejected.
- 74. He also noted that the proposed scheme will generate power to supply 500 homes rather than 5000 homes.
- 75. With reference to access over NPL's land, it is stated that in the Officers' Report that NPL has demonstrated a willingness to provide continued access. Mr Collins noted that this statement was subjective and has no legal value, as a willingness can disappear once consents are issued or the company changes ownership.
- 76. Mr Collins stated that to mitigate the loss of flows by requiring up to 12 three hour flow releases per year would provide almost no mitigation given that it would be impossible to time the releases to peak flow, would be dangerous to have so many kayakers on the water at one time, would be administratively impossible and difficult to inform users of a timed release, and does not address the issue of continued access.
- 77. Mr Collins summarised the use of the area for local and national users, noting that there were only two rivers in Taranaki that are considered suitable for beginner and advance beginner white water trips. Removal of the water in this stretch would therefore remove 50% of all beginner white water in Taranaki. Further outdoor experiences and education are of high value in New Zealand and in order to continue to foster these educational experiences it is essential that we retain quality environments for them to learn skills in.
- 78. Mr Collins noted that there had been no attempt made to quantify the effects of the loss of this section of the river on tourism and that he imagined a loss to the regional economy of \$2000/week could occur which would be larger than the income generated by the proposed scheme.

- 79. Mr Collins also noted in relation to evidence presented by the applicant that optimum flows for rivers users were not known, however the residual flow would result in kayaks scraping on the concrete of the weir, potentially causing damage.
- 80. In relation to the positive effects of the scheme, Mr Collins stated that the contribution to the country's energy supply will be approximately 0.01% and the benefits on a national scale will be small. Mr Collins noted that there needs to be a balance between energy and amenity, and compares the scheme with other [much larger] hydro schemes where amenity values have been lost; and with wind generation.
- 81. Mr Collins reiterated that his submission was that the applications be declined.

Kanihi (me etahi) Hapu and Okahu (me etehi atu) Hapu

- 82. **Ms Mere Brooks** presented evidence on behalf of Kanihi (me etahi) Hapu and Okahu (me etahi atu) Hapu. Ms Brooks summarised the areas of significance, history and marae sites, and the unknown urupa site in the area of the scheme.
- 83. Ms Brooks referred to the issues identified her initial submission and that these issues have not changed. Some of the issues have been articulated by Fish and Game and Department of Conservation. Many of the issues have been identified in the Officers' Report. Ms Brooks' evidence stated that they were in support of the upgrades to the fish pass.
- 84. She noted and supported the issue that DOC had raised about the lamprey pass.
- 85. Ms Brooks confirmed that urupa could be affected by the erosion downstream of the weir. However, she noted that there are measures recommended in the special conditions to help address this.
- 86. The Officers' Report states that cultural effects have been considered but this does not mean that the policies have been complied with. Protection of cultural values in the future needs to be considered, not just in the present day.
- 87. She also noted that dam safety had not been addressed in the Officers' Report.

Kaitiaki Adventures

- 88. **Mr Chris Luke** of Kaitiaki Adventures stated that he was opposed to the applications.
- 89. Mr Luke would like to see guaranteed access to the site. In the absence of an access agreement his business was in jeopardy.
- 90. There is no technical evidence that the minimum flow will stop the build up of a sand bar at the bottom of the weir. This is a potential hazard for recreational users.
- 91. Mr Luke noted that as discussed at the pre-hearing meeting, NPL had agreed to the possibility of increased flow levels when the river is in flood for recreation. In the absence of a written agreement, this will stop any user wanting to kayak or sledge this stretch of river.

92. In response to a question Mr Luke confirmed that a significant concern was that the build-up of sediment below the weir in natural low flow conditions made it too dangerous to undertake dam dropping. He also stated that dam dropping can be conducted even at quite low flows, but low flows may prevent dam droppers from having the option of floating around the loop.

Taranaki Regional Council Officers' Report and Evidence

- 93. **Ms Kimberley Hope** presented the Council Officers' Report. The report was taken as read, but Ms Hope noted some key points, which are summarised below.
- 94. She reiterated that the proposed hydro-electric scheme would have adverse effects on the flow regime, aquatic ecology, recreation, amenity and cultural values, particularly through the loss of water in the Normanby Loop, but those effects would be mitigated by consent conditions.
- 95. The Waingongoro River has been identified as a river of high natural, ecological and amenity values through policies 3.1.4 and 6.1.2 of the RFWP, and water allocation is therefore strictly limited in this catchment.
- 96. The proposed scheme utilises existing structures and uses a renewable resource to generate electricity, factors which must be had regard to when considering these applications.
- 97. Acknowledging the potential effects of the proposed applications and the strict limitations on allocation within the Waingongoro River [Policy 6.1.2], it is recommended that the consents be granted because the most significant effects are limited to a 3.1 km reach, after which flows return to natural levels.
- 98. She noted that the proposal involved utilisation of existing structures and development of a renewable energy resource that would provide regional and national benefits.
- 99. Ms Hope also clarified several points which had been raised in evidence.
- 100. She stated that the operation of the fish pass was an important part of the mitigation of adverse effects of the scheme and that the Council needs to ensure that it is operating continuously. She suggested the use of solar power would overcome problems getting power to the right bank of the river.
- 101. She confirmed that measuring of the rate of taking is necessary to determine compliance with consent conditions.
- 102. With respect to the duration of the consent, a shorter term is recommended due to the high value of the Waingongoro River and the policy to strictly limit further water allocation in this catchment, as well as uncertainty relating to the success of the proposed fish pass.
- 103. Ms Hope also confirmed that the distance between the weir and SH 45 was 15 km when following the river.

- 104. She also confirmed that the scheme should provide 500 homes with electricity rather than 5000 homes.
- 105. In response to questions Ms Jansma confirmed that flow measurements could be conducted downstream or calculated using generation figures, and that the intake could be calibrated so that the flow through the intake could be calculated.

Applicant's right of reply

- 106. Mr Auld produced a survey plan showing the land owned by NPL. The plan confirmed that NPL own an area of land on the right bank of the river.
- 107. Mr Auld reiterated that access for recreational users will continue to be provided if safety aspects are complied with. He also noted that this dam has a unique feature where the weir can be easily accessed by river users, unlike other hydro-electric schemes where the weir is fenced off. This weir has been available for use and will continue to be available under the proposed hydro-electric scheme.
- 108. Mr Auld reiterated that Iwi values are recognised by the applicant as being important and consultation would be ongoing.
- 109. He noted that there is a balance and that the balance is very much weighted in favour of using an existing facility to help solve New Zealand's problem of electricity generation.
- 110. Mr Auld commented further on measuring the flow through the fish pass, stating that there is high potential for vandalism of equipment, including any solar panel and that equipment has to be calibrated and maintained and there is no substitution for having an operator there to maintain the fish pass.
- 111. Mr Auld also stated that the shorter than expected consent duration was, in part, because the fish pass may not meet requirements, but there are other conditions proposed for ensuring the fish pass complies as well as review dates throughout the duration of the consent.
- 112. Ensuring the economic viability of the scheme is still an important fact to consider.

Water depth over the weir and river flow

- 113. During the applicant's reply Mr Auld presented a table prepared by engineering consultants Barnett and McMurray showing the flow at different water levels above the weir crest. This resulted in some discussion which is summarised.
- 114. Mr Auld noted that a depth of 3-4 inches of water over the weir represented a flow of about $1.8 \text{ m}^3/\text{s}$.

115. Ms Hope presented photos taken by Council staff at three different flows and previously provided to the applicant and submitters. The flows shown were approximately 2.74, 4.25 and 13.6 m³/s. She noted that the water level at the weir was from staff gauge on the side of the weir and did not correlate with the water levels above the weir crest produced in the table provided by the applicant.

Hearing closure

- 116. Cr David Lean, on behalf of the Committee, thanked the submitters, applicant, and Council staff for the information they provided and the manner in which it was presented.
- 117. Cr Lean noted that all evidence presented at the hearing will be considered in due course and declared the hearing closed.

Principal issues in contention

- 118. The Act requires the Committee to identify principal issues in contention and the main findings of fact. The issues are:
 - a) What are the implications of there being no formal arrangement for access to the site for recreational purposes?
 - b) Does the taking of water have significant adverse effects on ecology that can not be adequately avoided, remedied or mitigated?
 - c) Does the taking of water have significant adverse effects on recreation that can not be adequately avoided, remedied or mitigated?
 - d) Can the adverse effects of the weir and intake structure be adequately avoided, remedied or mitigated?
 - e) Can the adverse effects of the construction activity be adequately avoided, remedied or mitigated?
 - f) Are the economic benefits of the scheme significant to justify the adverse environmental effects?

Main Findings of Fact

119. The Committee deliberated on the application, submissions, Officers' Report, and other evidence presented, with particular regard to the matters which it is required to address under the Act. The length of the deliberations resulted in an extension of time, under section 37(1) of the Act, for the notifying the decision. The Committee's main findings of fact are detailed below under sub-headings reflecting the principal issues.

- 120. At the outset the Committee wishes to note that the proposal before it is quite unique. It involves recommissioning an existing scheme the major component of which, the weir, is in place and consented. There have been environmental effects from the weir on the river since 1902, some 106 years, and local ecosystems have adapted to its impact. It even pre-dates environmental legislation. Arguably the river's 'natural' state could be determined to include the weir structure. Indeed the weir has become an important recreational and tourism resource for others in the community to benefit from. The Committee notes that none of the submitters questioned the existing use rights of the weir and the Committee notes NPL endeavoured to accommodate other users with its applications.
- 121. Section 104(2A) of the Act requires the Committee to have regard to the value of the investment of the consent holder. The value of the weir, while not quantified at the hearing, would be significant and at least \$0.7 million.

Access

- 122. There are two issues related to access. The first is access across NPL's property by people wishing to undertake recreational pursuits [principally kayaking and dam dropping] at the weir site. The second is access by NPL across Mr Morris' land to undertake any works required, particularly on the fish pass and weir on the right bank of the river.
- 123. The Committee notes that NPL has always provided access to the river for recreation purposes and that it has stated its intention to keep providing access. However, whether or not any person allows access though their land, and the terms of any access is entirely at the landowner's discretion and the Committee has no jurisdiction in that area.
- 124. The Committee does not accept Mr Grieve's submission that it can not impose consent conditions that might require access across Mr Morris' land. The conditions need only be reasonably achievable and, in this case, there are ways for NPL to achieve the conditions.

Adverse effects on ecology

- 125. In accordance with the RFWP, the taking, use, damming and diversion of water in the Waingongoro River is, as far as practical, to be strictly limited above the existing level. It also recognises that the applications under consideration need to be assessed according to policies relating to water allocation and use.
- 126. According to the RFWP, the high natural, ecological and amenity values of the Waingongoro River will be maintained as far as practicable and adverse effects will be avoided as far as practicable.
- 127. Setting aside the minor potential effects of surge waves all of the ecological effects of the taking occur in the 3.1 km Normanby Loop.

- 128. The application includes a proposed residual flow of 3 m³/s in the Normanby Loop. Under natural conditions the river flows at less than 3 m³/s for 30% of the year and 60% of the summer [December March]. The stream ecology is therefore adapted to extended periods when the flow does not exceed 3 m³/s.
- 129. The Committee notes that there is a long established hydrological recorder station downstream of the Loop that provides appropriate records for the proposed site. Hydrological assessment and modelling of the data allow reasonably accurate impact assessments to be made as opposed to rivers where only a limited gauging record is available.
- 130. The establishment of minimum flows on the basis of habitat curves and Instream Flow Incremental Methodology [IFIM] is open to interpretation, and consequently minimum flows are rarely established without debate. However, the Committee accepts that the IFIM work on the Loop and assessment in the Officers' Report is reasonable and that a minimum flow of 3 m³/s is adequate as a baseline for protecting instream ecology.
- 131. The outstanding issue is the effect of the long periods of constant flow at 3 m³/s when, without the proposed taking, the flow would be greater and would vary with rainfall. These effects would mostly occur during winter months.
- 132. It is clear from the evidence that regular flows of at least three times mean flow are needed to maintain the health of the river and the Officers' Report recommends conditions that are intended to ensure adequate 'flushing flows' occur. Some submitters, notably Fish and Game, believe that the recommended flushing flow would not adequately mitigate the adverse effects of the proposed scheme on the flow regime and associated effects on ecology.
- 133. The provision for flushing flows, which occur relatively infrequently even under natural conditions, will not adequately mitigate the effects of taking water. The Officers' Report therefore recommends further occasional reductions in the rate of taking to provide greater flow variation in the Loop. The Committee agrees with this approach.
- 134. The Committee concludes that the activity is likely have adverse effects on ecology but that these effects would be adequately mitigated by the minimum flow proposed and appropriate flushing and release flows.
- 135. Considering the significance of the Waingongoro River and the submissions heard the Committee concludes that to adequately mitigate the effects of taking on the ecology:
 - a) the targeted frequency of flushing flows is to be 15 days [officers' recommendation: 30 days];
 - b) the period when release flows occur is to be 1 November to 30 April [officers' recommendation 1 December to 31 March]; and
 - c) the release flow is to be the full flow of the river [officers' recommendation: flow up to $6 \text{ m}^3/\text{s}$].

Adverse effects on recreation

- 136. The Committee believes that the applicant has made an adequate assessment of the recreational use of the area affected by the scheme, having submitted this information to the Council in section 92 requests, as well as recorded through discussions at prehearing meetings. This assessment is presented in the Officers' Report, and is accepted by the Committee.
- 137. The Committee accepts that there was no agreement on any consent condition with the submitters represented by Mr Collins.
- 138. The Committee accepts that the reach affected by the scheme [the Normanby Loop] is highly valued by recreational users including fishermen, swimmers, kayakers, sledgers, and dam droppers. The Waingongoro River is also culturally important to Iwi.
- 139. The Committee notes that there are two aspects to the recreational values. The weir itself and the Loop. The recreational value of the weir is in the still water it provides for people learning to kayak, and in the drop over the weir. The value of the loop is that it provides the opportunity to travel down river for 3.1 km and finish close to the start point.
- 140. Based on the depth of water over the weir crest at 3 m³/s, at the minimum flow, kayaking and dam dropping at the weir could still be undertaken.
- 141. The Committee also considers that, for at least 'beginner kayakers', the residual flow of 3 m³/s will also be sufficient in the loop to be used throughout the year including use by the commercial adventure tourism companies that currently use the weir and loop.
- 142. The Committee is aware that recreational flow releases at agreed times are a relatively common method of mitigating the effects of damming a river, and accepts that such releases can not provide as much mitigation in this case because there is no stored water available for release. However, it does not accept that allowing some flow to go over the weir at times suitable to kayakers will not be of benefit, should the consent be granted.
- 143. Mr Collins' evidence was that the recreational flow releases proposed in the Officers' Report would provide 'almost no' mitigation, however only one of the reasons given related to river flow. That being it would be almost impossible to time the release to coincide with peak flow. The Committee accepts that available river level information shows that that the river exceeds 13 m³/s for 10% of the time over winter. It therefore concludes that it should be relatively simple to identify times when flows could be released for kayakers up to intermediate level.
- 144. The Committee accepts that the proposal would have some effect on recreational opportunities, particularly those that rely on white water in the loop. However, at the minimum flow, which would occur for 60% of the time dam dropping can still occur and the effects on beginner level kayaking would not be significant. Effects on more advanced kayakers would be more significant but these effects can be mitigated to some extent by releasing flows at agreed times.

- 145. In considering the effects of the activity the Committee notes in particular that there is no public access to the weir and loop. All recreational opportunities are therefore provided at the discretion of landowners, and it is NPL that people primarily rely on for that. Therefore in considering these applications and the weight given to the adverse effects on recreational opportunities the Committee is aware that the convenience of the weir and loop for recreation can not be taken for granted.
- 146. The Committee accepts Mr Luke's concerns about a sand bar at the bottom of the weir developing more frequently and preventing dam dropping. However it expects that regular flushing flows will prevent this. The Committee's view is that development of the sand bar should be monitored to ensure that it does not develop on a more frequent basis and if it is found that sand deposition below the weir becomes an issue, this could be dealt with relatively quickly through a review of consent conditions.

Adverse affects of the weir and intake

- 147. DOC noted in its evidence there is a possibility that the use of CCA treated timber on the lamprey pass may provide a barrier by masking the lamprey's chemical agents in the water. The Committee's view is that untreated timber would not last and would require frequent replacement, but that option should be available to NPL.
- 148. The Committee notes DOC's concerns that the 30 mm mesh of the intake screen may not prevent eels less than 1000 mm from entering the intake. However, it also notes that the proposed mesh is triangular with the longest side 30 mm. The area of an opening is therefore only half that of a standard square 30 mm mesh. Further, the weir will be spilling continuously providing a much preferred migration route. The Committee considers that reducing the screen size to 20 mm could interfere with the efficient operation of the screen and result in significant drag through the intake structure. Based on the design and alternative migration route for this scheme the Committee considers that effects on eels of less than 1000 mm will be minor.

Adverse affects of construction activity

149. Submitters raised concerns regarding the potential for sedimentation during construction and operation of the proposed scheme. The Committee notes that there are conditions recommended in the Officers' Report which relate to the management and limits for discharge of sediment and in particular there are receiving water limits placed on water turbidity. The Committee is satisfied that these conditions would ensure that the effects from any discharge of sediment would be minor.

Economic effects

150. Several submitters have raised concern about the social and economic benefits of the scheme due to its small size, and the extent to which these benefits provide mitigation for the significant effects on the ecology, recreational, amenity and cultural values of the Loop. The Committee has heard evidence from both the applicant and submitters in relation to the benefits of the scheme in relation to energy generation, as well as the loss of benefits through tourism and recreation.

151. The Committee notes that while this is a small hydro-electric scheme, it provides some benefits which can be considered as part of the whole mitigation 'package'. It can by no means be used as a justification in its own right to grant the consents. Positive benefits relating to these applications are considered under policy 5.1.1 (b) and (c), and 6.1.5 (b) of the RFWP [degree of positive benefits to people and communities, and existing use of physical resources], and also section 7 (i) and (j) of the Act [climate change and renewable energy], as long as adverse effects are avoided, remedied or mitigated in accordance with the objectives and policies of the RFWP [as per policy 5.1.1 (a)].

Relevant Statutory Provisions

- 152. In considering these applications the Committee is required to, subject to Part 2 of the Act, to have regard to:
 - a) Any actual and potential effects on the environment of allowing the activity; and
 - b) Any relevant provisions of the:
 - i) Regional Policy Statement for Taranaki [RPS] or the Proposed Regional Policy Statement for Taranaki [PRPS], and:
 - ii) Regional Fresh Water Plan for Taranaki [RFWP].
- 153. The actual and potential effects on the environment of the activity were assessed in the Officers' Report. Subject to the comments made in this report the Committee accepts the officers' assessment.

Policy Statements and Plan Provisions

- 154. The key policy document that the Committee must have regard to is the RFWP, and the assessment of the RFWP presented in the Officers' Report is accepted by the Committee.
- 155. Several submitters raised concerns that the proposal was inconsistent with the RFWP, and specifically with policies 3.1.4, 5.1.1 and 6.1.2.
- 156. The Committee notes that Issue 6.1 [including policy 6.1.2] is the most specific in the RFWP for determining when taking, damming and use of river beds will be allowed, which requires a balancing of positive effects of allowing the activity against the adverse effects.
- 157. The Committee, in particular, notes that the Waingongoro River has high natural, ecological and amenity values as identified in policy 3.1.4 and Appendix 1A of the RFWP, which are to be maintained and enhanced. Adverse effects on these values are to be avoided as far as practicable, or remedied or mitigated. Further, water allocation in this catchment is to be strictly limited [policy 6.1.2].
- 158. The use of water for hydroelectric generation purposes is not a consumptive use such as a rural water supply scheme, as the water is returned to the river a short distance downstream.

- 159. The Committee also acknowledges that although the proposed scheme would generate a relatively small amount of electricity, the community and regional benefits of the scheme and the use of existing resources [policy 5.1.1] must be considered. Further, the scheme utilises a renewable energy resource, and off-sets CO₂ emissions, factors which also contribute to the benefits from the scheme.
- 160. There will be adverse effects on ecological, recreational and amenity values through the altered flow regime. However, the effects are limited to a 3.1 km reach, which is only a very small proportion of the river, and in conjunction with the mitigation of effects available, the Committee considers that having regard to the RFWP, does not provide a significant impediment to the granting of the consents.
- 161. In having regard to the RPS and PRPS the Committee notes that the PRPS includes a policy stating that the use and development of renewable energy resources will be encouraged as far as is practicable and appropriate in a manner that does not compromise the sustainable management of natural and physical resources or the achievement of other policies.
- 162. The Committee notes that NPL has applied to take 10 m³/s for hydroelectric power generation purposes. The RFWP in Policy 6.1.3 requires the Committee to have particular regard to (c) the importance of the river to meet the existing and reasonably foreseeable needs of community water supplies, agriculture, industrial or other use. No submissions were received from industrial or rural water supply consent holders in the catchment above the weir, which are currently allocated 0.23 m³/s. This is a very small fraction of the use envisaged by NPL and it is considered the proposed scheme is therefore not likely to affect the existing or reasonable future use of water in the Waingongoro River catchment above the weir.
- 163. Granting of the consent to take water at the rate of 10 m³/s would not imply that NPL is allocated all remaining water in the catchment above the weir.

Part 2 Matters

- 164. Section 5 of the Act states that the purpose of the Act is to promote the sustainable management of natural and physical resources. The effects of the applications have been considered. Approval of the applications, subject to the conditions to avoid, remedy or mitigate adverse effects, would be consistent with the purpose of the Act by enabling people and communities to provide for their social, economic and cultural well-being, and for their health and safety, while sustaining the potential of natural and physical resources to meet the reasonable needs of future generations, safeguarding the life supporting capacity of ecosystems, and avoiding, remedying, or mitigating any adverse effects of activities on the environment.
- 165. Section 6 of the Act states matters of national importance that all persons shall recognise and provide for. Specifically subsection 6(a) provides for the preservation of the natural character of the coastal environment, and rivers and their margins; section 6(d) provides for maintenance and enhancement of public access; and section 6(e) provides for the relationship of Maori with their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.

- 166. The Committee notes that public access was an important issue for submitters and NPL was endeavouring to maintain and enhance public access to the river as long as safety concerns were addressed. Access along the river bank is unlikely to change during operation of the scheme.
- 167. The Committee also notes the concerns of Tangata Whenua about waahi tapu sites, including physical impacts on Okahutiti Pa [Figure 1] and notes that these probably fall within the jurisdiction of South Taranaki District Council, and should have been considered when issuing the certificate of compliance given for the proposed scheme. Concerns were also held about ecological and biodiversity impacts and these have been considered above.
- 168. Section 7 of the Act states other matters that the Committee must have particular regard to. Specifically: section 7(a) provides for Kaitiakitanga; section 7(d) provides for intrinsic values of ecosystems; 7(h) provides for protection of the habitat of trout and salmon; and 7(j) provides for the benefits to be derived from the use and development of renewable energy.
- 169. Section 8 of the Act requires all persons to take into account the principles of the Treaty of Waitangi. A key principle is consultation, which the Committee notes was undertaken by NPL and that there is a desire to continue dialogue during scheme commissioning and operation.
- 170. It is considered that all matters in sections 6, 7, and 8 of the Act have been recognised and provided for, or had regard to, in considering the objectives and policies of the RFWP, RPS, PRPS, and in the Officers' Report accepted by the Committee. Therefore, it is considered that the requirements of Part 2 of the Act have been met, and that there are no matters in sections 6, 7 and 8 of the Act of relevance to the applications that have not already been considered.

Decision

- 171. Resource management decisions are often complex and involve competition for use of a resource. The NPL applications and submissions are no different and demand that a number of competing matters be considered and had regard to. The Committee has done this for these applications and notes that there are positive effects of recommissioning the scheme which accrue to NPL and promote its financial wellbeing as well as the community's in providing a renewable source of energy which is required for community use and development. On the other hand, there are adverse effects of the proposal which may be significant unless they can be avoided, remedied or mitigated.
- 172. On balance the positive effects outweigh the adverse effects and the Committee notes that the 6 m weir has been in place for over 100 years and local ecosystems have become adapted to it. Had the proposal involved constructing a new weir the Committee's conclusions may have been different given the high value placed on the Waingongoro River by the community. Also, the position of kayakers and canoeists may have been different to the present applications because a more suitable resource for their use may have been created.

173. Pursuant to section 104 of the Act, the Committee grants consents 2299-3, 6558-1 and 7078-1 subject to conditions. The conditions are detailed below.

Reasons for the Decision

- 174. The activity is consistent with the purpose of the Act in that it promotes the sustainable management of natural and physical resources in a way that enables people and communities to provide for their social, economic and cultural wellbeing, while avoiding remedying or mitigating adverse effects on the environment.
- 175. The adverse effects of the activity are limited to a 3.1 km length of river, and those effects can be adequately mitigated.
- 176. While the proposed scheme is small it has benefits that need to be recognised and these benefits have additional weight because they are based on renewable energy.
- 177. Monitoring will occur to confirm the environmental effects of the proposal along with the flow regime and other mitigation measures required.

Commentary on Conditions of Consent

- 178. The consent conditions are largely as recommended in the Officers' Report.

 Commentary on some conditions, in particular those that were discussed in evidence follows.
- 179. The Committee is satisfied that the conditions are reasonably necessary to:
 - a) limit the nature and scale of the activity to that applied for and assessed;
 - b) mitigate adverse effects;
 - c) monitor effects; and
 - d) confirm compliance with consent conditions.
- 180. The maximum rate of taking authorised is 10 m³/s but that is not to be interpreted as a surrogate for an annual allocation. There is no specific condition restricting the annual volume of water allocated, but there are conditions restricting the instantaneous rate of taking, requiring residual flow, and restricting the timing of taking. These conditions clearly limit the volume of water that can be taken in any year to something significantly less than the annual flow of the river. The river is therefore not fully allocated and future applications to take water from upstream of the weir can therefore be contemplated in accordance the provisions of the RFWP.
- 181. NPL submitted that measuring of the rate of taking and measuring of the water level in the fish pass was unnecessary and technically difficult. Fish and Game submitted that water levels should be monitored downstream of the power station discharge to ensure compliance with the conditions limiting surges and ramping rates.
- 182. The decision is that the rate of taking needs to be measured directly to ensure compliance with consent conditions, particularly conditions limiting the rate of taking, including those requiring the taking of water to stop altogether.

- 183. The Committee accepts that measuring the level in the fish pass would be impractical and that frequent surveillance by an operator should be sufficient to ensure that it is operating satisfactorily.
- 184. Surges will be very rare events and should be adequately managed by NPL. So continuous monitoring of water levels at interval of five minutes, as requested by Fish and Game is not appropriate.
- 185. The scale of the monitoring programme will reflect the magnitude of the environmental effects of the proposed scheme rather than the scale of the scheme itself. The Committee acknowledges that while this is a small hydro-electric scheme, any monitoring programme developed will need to be comprehensive during the commissioning and early operation of the scheme to determine if effects are being appropriately mitigated. If or when it can be determined that the effects of the scheme have been appropriately avoided, remedied or mitigated, the monitoring programme can be reasonably adjusted to reflect this.
- 186. In order to assess the effects of the scheme the monitoring programme will need to be initiated immediately the consent commences so that adequate information can be collected before the scheme is commissioned for comparison with information collected afterwards.
- 187. Tangata whenua and other submitters will be consulted when the monitoring programme is determined, and there is potential for ongoing liaison over scheme operation which could focus around the annual monitoring report noted in special conditions.
- 188. Mr Venus' views on the 'exception clause' attached to the condition restricting instream works to between 1 November and 30 April are noted and to some extent accepted. However, the condition specifically addresses policy 6.6.6 of the RFWP and is for the purpose of protecting fish migration and spawning. So, while it considered deleting the exception clause, the Committee's decision is the condition remains unchanged to provide for minor maintenance during the exclusion period.
- 189. Fish and Game has requested any consent issued to disturb the river bed have a condition limiting the increase in turbidity to 50%. However at low natural turbidity, this would unnecessarily restrict instream work, and the two tiered approach recommended in the Officers' Report provides a practical limit which will still protect the water quality of the Waingongoro River.
- 190. While the Committee concluded that untreated timber would not be an appropriate material for a lamprey pass, the relevant condition has been modified so that it is less specific but still achieves its purpose.
- 191. While the applicant has committed to undertaking riparian planting on NPL land and any adjacent land where landowners agree in the area affected by the power station, submitters noted that no consent condition currently requires riparian planting to be undertaken. The Committee agrees that a condition requiring riparian planting be included but notes that NPL cannot plant on adjacent properties unless landowners agree, and to impose such a requirement would be ultra vires.

Duration of Consent

- 192. The applicant has requested that the duration of the consent be a maximum of 35 years to provide economic certainty for the scheme. The Officers' Report recommended a shorter consent duration of 15 years, which was largely supported by most submitters in the event that the consents were granted. The Committee agrees that a 15 year duration is too short to provide economic certainty but acknowledges that, due to the high values of the Waingongoro River and the submissions received, a 35 year duration is not appropriate.
- 193. The duration of the consents will be 21 years.
- 194. Provision for conditions to be reviewed will be more frequent than usual to allow for the actual effects of the scheme to be confirmed through monitoring and allow any outstanding issues to be addressed through the review process.
- 195. There will be provision for a review of conditions annually until the scheme has been operating for three years. Thereafter there will be provision for review of conditions at three yearly intervals.

Decision detail

Application 3554 [consent 2299-3]: to dam the Waingongoro River

Application 3554, to dam the Waingongoro River with a 6 metre high concrete weir for hydroelectric power generation purposes, is approved for a period to 1 June 2029 subject to the following conditions:

General conditions

- a) On receipt of a requirement from the Chief Executive, Taranaki Regional Council the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.
- b) Unless it is otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent must be at the consent holder's own expense.
- c) The consent holder shall pay to the Council all required administrative charges fixed by the Council pursuant to section 36 in relation to:
 - i. the administration, monitoring and supervision of this consent; and
 - ii. charges authorised by regulations.

Special conditions

1. In conjunction with special condition 13 of consent 6558-1 and special condition 11 of consent 7078-1, a monitoring programme shall be developed and undertaken in reasonable consultation with submitters. The monitoring programme shall ensure that the effects of this consent are adequately determined and monitored to the reasonable satisfaction of the Chief Executive, Taranaki Regional Council.

The monitoring programme shall commence within 6 months of the consent commencing [in terms of section 116 of the Resource Management Act] and shall include an assessment of:

- a. the impact of any increased periphyton growth, as a result of this consent, on recreation and amenity values;
- b. the formation of any sediment accumulation immediately below the weir and its effect on 'dam dropping';
- c. the impact of this consent on recreational activity [including fishing] in the residual flow reach;
- d. the impact of this consent on trout habitat in the residual flow reach; and
- e. the effect of this consent on fish passage.

The monitoring programme shall be reviewed and reported on annually.

- 2. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review:
 - a. annually during the month of June until the June following the third anniversary of the scheme first operating; and/or
 - b. at three yearly intervals during the month of June after the June following the third anniversary of the scheme first operating;

for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

Application 3555 [consent 6558-1]: to take and use water

Application 3555, to take and use water from the Waingongoro River for hydroelectric power generation purposes, is approved for a period to 1 June 2029, subject to the following conditions:

General conditions

- a) On receipt of a requirement from the Chief Executive, Taranaki Regional Council the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.
- b) Unless it is otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent must be at the consent holder's own expense.
- c) The consent holder shall pay to the Council all required administrative charges fixed by the Council pursuant to section 36 in relation to:
 - i. the administration, monitoring and supervision of this consent; and
 - ii. charges authorised by regulations.

Special conditions

- 1. The consent holder shall notify the Chief Executive, Taranaki Regional Council, in writing at least seven days prior to the exercise of this consent. Notification shall include the consent number and a brief description of the activity consented and be emailed to worknotification@trc.govt.nz.
- 2. The rate of taking shall not exceed 10 cubic metres per second.
- 3. The taking of water authorised by this consent shall be managed to ensure that the flow in the Waingongoro River immediately below the intake point is no less than 3000 litres per second. No taking shall occur when the flow is less than 3000 litres per second.
- 4. All water taken shall be discharged back into the river adjacent to the power house.
- 5. If a 'flushing flow' [defined as a flow over the weir that exceeds 14 cubic metres per second] does not occur during any continuous period of 15 days, the consent holder shall facilitate a flushing flow at the next opportunity. To facilitate a flushing flow the consent holder shall ensure that on the next occasion that the river flow exceeds 14 cubic metres per second, taking shall cease for 8 hours.
- 6. If the flow over the weir does not exceed 6 cubic metres per second during any continuous period of 14 days between 1 November and 30 April, the consent holder shall, within 24 hours, stop taking so that the entire river flow passes over the weir for at least 3 hours. Once a release flow has occurred, the 14 day period shall restart, irrespective of the total flow which passed over the weir during the release.
- 7. On up to 12 occasions per year the consent holder shall regulate, or stop, taking to allow a 'recreational flow' over the weir. A 'recreational' flow shall:
 - a. be the entire flow of the river;
 - b. occur for a maximum duration of 3 hours;

- c. only occur at the written request of a person delegated to make such requests by the New Zealand Recreational Canoe Association, received by the consent holder no less than 48 hours beforehand; and
- d. occur at the time reasonably requested, or agreed to, by the organisation.
- 8. A log of recreational release flows shall be maintained and provided to the Chief Executive, Taranaki Regional Council and/or the New Zealand Recreational Canoe Association upon request. Such a log shall include:
 - a. name of person making the request;
 - b. date and time the request was made;
 - c. date of release flow;
 - d. time and duration of release flow; and
 - e. maximum flow released.
- 9. The consent holder shall measure and electronically record at intervals not exceeding 15 minute intervals the:
 - rate that water is taken from the Waingongoro River to an accuracy of ± 5%;
 - flow in the Waingongoro River immediately downstream of the weir to an accuracy of $\pm 10\%$;

and shall provide these records to the Chief Executive, Taranaki Regional Council, at three monthly intervals or upon reasonable request.

- 10. The intake shall be screened with a screen having a maximum aperture dimension of 30 mm. The maximum through screen velocity shall be 0.3 metres per second.
- 11. That start-up and shutdown of the power station shall not generate a change in water level [including both positive and negative surge waves] in excess of 200 mm in height downstream of the weir or power station discharge.
- 12. That an emergency backup system (power and communication) be installed prior to commissioning of the scheme to ensure that generation can continue to be managed during emergency situations for up to 48 hours.
- 13. In conjunction with special condition 1 of consent 2299-3 and special condition 11 of consent 7078-1, a monitoring programme shall be developed and undertaken in reasonable consultation with submitters. The monitoring programme shall ensure that the effects of this consent are adequately determined and monitored to the reasonable satisfaction of the Chief Executive, Taranaki Regional Council.

The monitoring programme shall commence within 6 months of the consent commencing [in terms of section 116 of the Resource Management Act] and shall include an assessment of:

- a) the impact of any increased periphyton growth, as a result of this consent, on recreation and amenity values;
- b) the formation of any sediment accumulation immediately below the weir and its effect on 'dam dropping';

- c) the impact of this consent on recreational activity [including fishing] in the residual flow reach;
- d) the impact of this consent on trout habitat in the residual flow reach; and
- e) the effect of this consent on fish passage.

The monitoring programme shall be reviewed and reported on annually.

- 14. The consent holder shall undertake riparian planting on any land owned by the consent holder, and on any adjacent land where individual landowners provide written agreement, in the area that is affected by the power scheme. The purpose of the planting shall be to mitigate the environmental effects of the water take. The planting shall include fencing, planting and on-going maintenance of the riparian area for the duration of the consent.
- 15. This consent shall lapse on the expiry of five years after the date of issue of this consent, unless the consent is given effect to before the end of that period or the Taranaki Regional Council fixes a longer period pursuant to section 125(1)(b) of the Resource Management Act 1991.
- 16. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review:
 - a. annually during the month of June until the June following the third anniversary of the scheme first operating; and/or
 - b. at three yearly intervals during the month of June after the June following the third anniversary of the scheme first operating;

for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

Application 4558 [consent 7078-1]: to erect, place, use and maintain a dam

Application 4558, to erect, place, use and maintain a concrete weir and ancillary structures in the Waingongoro River; and to undertake excavation and disturbance of the river bed that is directly associated with that activity, for hydroelectric power generation purposes, is approved for a period to 1 June 2029, subject to the following conditions:

General conditions

a) On receipt of a requirement from the Chief Executive, Taranaki Regional Council the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.

- b) Unless it is otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent must be at the consent holder's own expense.
- c) The consent holder shall pay to the Council all required administrative charges fixed by the Council pursuant to section 36 in relation to:
 - i. the administration, monitoring and supervision of this consent; and
 - ii. charges authorised by regulations.

Special conditions

- 1. Notwithstanding any other condition of this consent the consent holder shall at all times adopt the best practicable option, as defined in section 2 of the Resource Management Act 1991, to prevent or minimise any adverse effects on the environment from the exercise of this resource consent.
- 2. The exercise of this consent shall be undertaken substantially in accordance with the documentation submitted in support of application 4558. In the case of any contradiction between the documentation submitted in support of application 4558 and the conditions of this consent, the conditions of this consent shall prevail.
- 3. The consent holder shall notify the Chief Executive, Taranaki Regional Council, in writing at least seven days prior to the exercise of this consent and at least 48 hours prior to and upon completion of any maintenance works which would involve disturbance of or deposition to the river bed or discharges to water. Notification shall include the consent number and a brief description of the activity consented and be emailed to worknotification@trc.govt.nz.
- 4. Any disturbance of parts of the riverbed covered by water and/or any works which may result in downstream discolouration of water shall be undertaken only between 1 November and 30 April, except where this requirement is waived in writing by the Chief Executive, Taranaki Regional Council.
- 5. The consent holder shall take all reasonable steps to:
 - a. minimise the amount of sediment discharged to the river;
 - b. minimise the amount of sediment that becomes suspended in the river; and
 - c. mitigate the effects of any sediment in the river.

Undertaking work in accordance with *Guidelines for Earthworks in the Taranaki region*, by the Taranaki Regional Council, will achieve compliance with this condition.

6. After allowing for reasonable mixing, within a mixing zone extending 100 metres downstream of any discharge, that discharge shall not give rise to either of the following effects in the receiving waters of the of the Waingongoro River:

- a. an increase in suspended solids concentration in excess of 10 gm⁻³, when the stream turbidity as measured immediately upstream of the discharge point in the Waingongoro River is equal to or less than 5 NTU [nephelometric turbidity units]; or
- b. an increase in turbidity of more than 50% when the stream turbidity as measured immediately upstream of the discharge point in the Waingongoro River is greater than 5 NTU [nephelometric turbidity units].
- 7. The consent holder shall ensure that the area and volume of river bed disturbance shall be the practical minimum necessary to achieve its purpose. Any areas which are disturbed shall, as far as practicable, be reinstated.
- 8. Within one year of the commencement of this consent the consent holder shall modify the existing fish pass by:
 - Extending the bottom of the fish pass and adjusting weir heights to get a 7.9 degree gradient throughout the fish pass; and
 - Forming a rock ramp in each concrete pool that generates a central channel with emergent rocks on each side.
- 9. Within one year of the commencement of this consent the consent holder shall construct an angled, rounded timber baffle 2m long [or similar structure that achieves the same effect], which can be placed on the dam crest, to provide for lamprey passage past the weir. This is to be installed and operative during the lamprey migration season defined as 1 June to 30 September each year.
- 10. The structure authorised by this consent shall not significantly affect the passage of the following target fish species:
 - Brown trout
 - Rainbow trout
 - Torrentfish
 - Smelt
 - Inanga
 - Redfin bullies;

as determined by a specific monitoring programme undertaken to determine fish passage in the immediate vicinity of the weir as well as changes in target fish distribution throughout the upstream catchment. Notwithstanding special condition 8 above, if monitoring confirms the fish pass is not providing adequate passage for any target fish species, further changes to the fish pass may be required within three months or a time reasonably agreed by the Chief Executive, Taranaki Regional Council.

11. In conjunction with special condition 1 of consent 2299-3 and special condition 13 of consent 7078-1, a monitoring programme shall be developed and undertaken in reasonable consultation with submitters. The monitoring programme shall ensure that the effects of this consent are adequately determined and monitored to the reasonable satisfaction of the Chief Executive, Taranaki Regional Council

The monitoring programme shall commence within 6 months of the consent commencing [in terms of section 116 of the Resource Management Act] and shall include an assessment of:

- a. the impact of any increased periphyton growth, as a result of this consent, on recreation and amenity values;
- b. the formation of any sediment accumulation immediately below the weir and its effect on 'dam dropping';
- c. the impact of this consent on recreational activity [including fishing] in the residual flow reach;
- d. the impact of this consent on trout habitat in the residual flow reach; and
- e. the effect of this consent on fish passage.

The monitoring programme shall be reviewed and reported on annually.

- 12. In the event that any archaeological remains are discovered as a result of works authorised by this consent in the river bed, the works shall cease immediately at the affected site and Tangata Whenua and the Chief Executive, Taranaki Regional Council, shall be notified within one working day. Works may recommence at the affected area when advised to do so by the Chief Executive, Taranaki Regional Council. Such advice shall be given after the Chief Executive has considered: Tangata Whenua interest and values, the consent holder's interests, the interests of the public generally, and any archaeological or scientific evidence. The New Zealand Police, Coroner, and Historic Places Trust shall also be contacted as appropriate, and the work shall not recommence in the affected area until any necessary statutory authorisations or consents have been obtained.
- 13. The weir and associated structures shall not cause any significant erosion of the river bed or banks.
- 14. A report investigating erosion of the river bed and banks for a distance of 100 m downstream of the weir shall be provided to the Chief Executive, Taranaki Regional Council within one year of the commencement of this consent. The report shall be prepared by a suitably qualified river engineer and shall detail:
 - a. existing erosion of the river bed and banks;
 - b. the potential for further erosion;
 - c. the impact of existing and potential erosion on any land, the weir and any wāhi tapu site [including urupa];
 - d. the extent that the erosion may be caused by any structures authorised by this consent; and
 - e. recommendations for any work to mitigate erosion.
- 15. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review:
 - a. annually during the month of June until the June following the third anniversary of the scheme first operating; and/or

b. at three yearly intervals during the month of June after the June following the third anniversary of the scheme first operating.

for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

Hearing Committee

Cr David Lean [Chairperson]

Cr Moira Irving