IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of submissions by King Country Energy Limited on the Proposed One Plan notified by the Manawatu Wanganui Regional Council

STATEMENT OF EVIDENCE OF DAVID JAMES SCHUMACHER

1.0 INTRODUCTION

1.1 My name is David James Schumacher. I am employed by Ryder Consulting Limited ('**Ryder**') as an Environmental Planner in Tauranga. My responsibilities include reviewing and submitting on District and Regional planning documents, the preparation of resource consent applications, the management of resource consent projects and the preparation and presentation of expert evidence.

1.2 This evidence is in support of the submissions lodged by King Country Energy Limited ('**KCE**') to the Proposed Horizons Regional Council One Plan (the '**Proposed Plan**'), on Chapters 6 and Schedule B. It is also in support of the primary submissions of Meridian Energy Limited ('**MEL**').

2.0 QUALIFICATIONS AND EXPERIENCE

2.1 I hold a Bachelor of Social Sciences with honours in Resource and Environmental Planning from the University of Waikato.

2.2 I have been employed by Ryder for four months, having started with the Company in June 2009. I have in excess of two years of planning experience working within private consultancies in Auckland and Tauranga. In my role with Ryder, I deal with a range of water related matters for Companies such as Cardrona Alpine Resort, Rangitata Diversion Race Management Limited (which is the largest irrigation scheme in New Zealand), TrustPower Limited, KCE and Todd Energy Limited ('**Todd**'). I have also recently assisted with the preparation of the Officer's Report, on behalf of the Bay of Plenty Regional Council, for a discharge permit from the Tasman Pulp and Paper Mill in the Eastern Bay of Plenty.

2.3 I confirm that I have read and agree to comply with the Code of Conduct for Expert Witnesses (July 2006).

3.0 STRUCTURE OF EVIDENCE

3.1 This evidence is structured to reflect the different chapters relating to water in the Proposed Plan. In this regard, I will address water allocation, structures in the beds of rivers and lakes, and the maintenance of existing structures and associated activities.

3.2 In my evidence I will:

(a) Provide background to KCE's submission to the Proposed Plan and the scope of this evidence;
(b) Introduce Todd as a supporter to this evidence;
(c) Provide background to KCE's support of the primary submissions of MEL.
(d) Address the recommendations made in the Officer's Report; and
(e) Draw conclusions on KCE and Todd's position in relation to the appropriate Water Chapters of the Proposed Plan.

4.0 KING COUNTRY ENERGY LIMITED AND TODD ENERGY LIMITED

King Country Energy Limited

4.1 As stated in the evidence of Mr. Fincham, KCE own and operate the Piriaka Hydroelectric Power Scheme ('**PHEPS**'), which is located on the Whanganui River near Taumaranui. KCE also have a fifty percent shareholding in the Mangahao Hydroelectric Power Scheme ('**MHEPS**'), which is located near Shannon on the Mangahao River (See Annexure 1 for location details).

4.2 KCE came to the Proposed Plan process reasonably late in the public notification period. As a consequence of this, it chose to make a targeted submission to the Proposed Plan. Policy 6-16 and Schedule B were highlighted as being the key areas of concern to KCE and thus were the only topics addressed in the submission lodged.

4.3 Since lodging its submission, KCE has reviewed the remainder of the Proposed Plan. In doing so it identified a number of other matters that were of concern to it. In seeing that many of the matters were addressed in the submissions of MEL, KCE approached MEL and requested that it be able to adduce evidence in support of the submissions made by those organisations. MEL agreed to KCE's request. As a consequence KCE engaged Ryder Consulting to prepare expert planning evidence on the pertinent matters. Consequently, this evidence reflects a combination of the relief sought by each of these parties in light of the requirements of KCE.

Todd Energy Limited

4.4 As highlighted by Mr. Armstrong, Todd is a fifty percent shareholder of the MHEPS and manage the day to day operations of this Scheme.

4.5 Todd were unaware of the Proposed Plan until after the period of further submissions had concluded. The Company also subsequently reviewed the Proposed Plan and the submissions of KCE and MEL and has sought permission from those submitters to present evidence in support of a number of submissions lodged, as part of the cases of those organisations. All three submitters have given their approval to Todd being so involved.

5.0 GENERAL COMMENTS

5.1 The Proposed National Policy Statement for Renewable Electricity Generation ('**the PNPS**') was notified on 6 September 2008. Whilst the PNPS is a proposed document and a recommendation from the PNPS Board of Inquiry is yet to be made, it is, in my opinion, none-the-less relevant to these proceedings. It is stated in the Explanatory Note to the PNPS that it is to be applied by all persons exercising powers and functions under the Resource Management Act 1991 (the '**RMA**' or the '**Act**') and is therefore considered to be relevant to the Proposed Plan.

5.2 The PNPS sets out a number of provisions relating to the importance of Renewable Electricity Generation in New Zealand. It contains one objective and five policies, all of which seek to recognise the importance of renewable electricity generation to New Zealand. Of particular relevance to these proceedings is Policy 1, which states:

> *"The benefits of renewable electricity generation activities, at any scale, are of national significance. Decision-makers must have particular regard to the national, regional and local benefits relevant to renewable electricity generation activities. These benefits may include, but are not limited to:*
>
> > *i. maintaining or increasing electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions*
> > *ii. maintaining or increasing security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation."*[1]

5.3 Policy 1 requires that the Committee recognise the benefits that arise from PHEPS and MHEPS as being nationally significant. It follows that to detract from or otherwise diminish the generation capacity of either Scheme could therefore detract from or diminish the nationally significant benefits that are derived from such renewable energy generation schemes.

5.4 I note, for completeness, that Policy 1 is also consistent with section 7(j) of the Act, which requires that all persons exercising functions and

[1] Policy 1, Proposed National Policy Statement for Renewable Electricity Generation.

powers under the Act shall *"have particular regard to … the benefits to be derived from the use and development of renewable energy"*[2].

5.5 I am firmly of the opinion that the generation of renewable electricity is of sufficient significance to warrant a 'national importance' categorisation. In drawing this conclusion I am acknowledging the integral role that a secure and reliable supply of electricity plays in both society and the economy, and that it fulfils an essential role in the maintenance and enhancement of the health and well-being of people and communities.

5.6 I believe that policy at a regional level should reflect the provisions of the PNPS and recognise the national significance of renewable electricity and the benefits that it generates, regardless of the scale.

5.7 Given the foregoing, I support all provisions contained within the Proposed Plan that provide for the ongoing use, maintenance and upgrading of existing infrastructure and that recognise the environment as it exists. Specifically, Policy 6-31 and Rules 16-5 and 16-6. Providing for the ongoing use of existing structures associated with the production of hydroelectric power also recognises Council's requirement to have particular regard to section 7(j) of the Act.

WATER ALLOCATION

6.0 Objective 6-3 Water Quantity and Allocation

Reasons For Submission

6.1 Objective 6-3 reads:

> *"Water is managed to enable people, industry and agriculture to take and use water to meet their reasonable needs while ensuring that:*
> *(a) For surface water:*
> *(i) minimum flows and allocation regimes are set for the purpose of maintaining the existing life-supporting capacity of rivers and providing for other values of rivers as necessary*
> *(ii) in times of water shortage, takes are restricted to those that are essential to the health or safety of people, communities or stock, and other takes are ceased*
> *(iii) the amount of water taken from lakes does not compromise their existing life-supporting capacity*
> *(iv) the requirements of Water Conservation Orders and Local Water Conservation Notices are upheld.*
> *(b) For groundwater:*
> *(i) takes do not cause a significant effect on the long-term groundwater yield*

[2] Resource Management Act 1991, Section 7(j)

(ii) groundwater takes that are hydrologically connected to rivers, lakes or wetlands are managed within the minimum flow and allocation regimes established for those waterbodies, or to protect their life-supporting capacity
(iii) the effects of a groundwater take on other groundwater takes are managed
(iv) saltwater intrusion into coastal aquifers, induced by groundwater takes, is avoided.
(c) In all cases, water is used efficiently."

6.2 MEL opposed, in part, Objective 6-3 of the Proposed Plan on the basis that it "*does not give particular regard to the benefits of hydro electricity generation facilities, as a form of renewable energy*"[3].

6.3 MEL's submission sought that a new objective be included that specifically provides for hydro electricity takes, uses, damming and diversion.

Officer's Report

6.4 The Officer recommends that the submissions of MEL be rejected, and questions why specific reference to electricity generation is required.

6.5 In making their recommendation the Officer states that Objective 6-3 is aligned with the wording within Section 14 of the Act in that it recognises that water for human and stock consumption for drinking, needs to be provided for.

Comment

6.6 I agree that Objective 6-3 should be consistent with Section 14 of the Act. This does not, however, prevent the express recognition of additional uses that also generate nationally significant benefits and which entail the construction and operation of significant infrastructure. As indicated in Paragraph 5.2 of this statement, all renewable energy generation has been recognised as being nationally significant. Consequently, I believe that the ongoing viability of renewable energy generation schemes is a relevant matter for the Proposed Plan and deserves recognition in Objective 6-3.

6.7 As a result of the above, I support MEL's submission that Objective 6-3(a) be amended to include a new objective that specifically provides for hydro electricity takes, uses, damming and diversion.

7.0 Policy 6-1 and Table 6.2

Reasons For Submission

7.1 Policy 6-1 reads:

[3] MEL Ltd, Submission on Horizons One Plan, p25.

"For the purposes of managing water quality, water quantity, and activities in the beds of rivers and lakes, the rivers and lakes in the Manawatu-Wanganui Region have been divided into the water management zones shown in Schedule D. The rivers and lakes shall be managed in a manner which recognises and provides for the values identified in Schedule D for each water management zone*. The values and their associated purposes are set out in Table 6.2."*

7.2 MEL opposed, in part, the water management values and purposes proposed listed in Table 6.2 as they do not appear to include all the values that the Council are required to have regard to. MEL also noted that "*as there is no definition of 'industrial abstraction', it is difficult to determine if this also refers to the existing and potential use of water for hydro electricity generation. Hydro electricity generation facilities are a significant water user and one which should be given regard to in this policy in order to give effect to s7(i) and (j) of the RMA."*[4].

7.3 As such, MEL sought that Table 6.2 be amended to include hydro electricity generation as an individual value within the Water Use value group; or make it explicit that hydro electricity generation is included as an industrial abstraction.

Officer's Report

7.4 The Officer recommends that MEL's submission be rejected. In this regard, the Officer considers that that the term 'Industrial Abstraction', which is currently contained in Table 6.2, would provide for infrastructure activities, including hydroelectric power generation.

Comment

7.5 It appears that the Officer agrees that the abstraction of water for electricity generation should be provided for but feels that an existing individual value group (Industrial Abstraction) within Table 6.2 provides the recognition sought by MEL.

7.6 Neither the Proposed Plan nor the Act contains a definition of the term 'industrial abstraction', this can create uncertainty and means such a term may be interpreted differently by different people. According to the Collins English Dictionary and Thesaurus, Industry means *"the manufacture of goods"*[5]. It follows therefore, that, an 'industrial abstraction' can be taken to mean the abstraction of water for the manufacture of goods. In my opinion, this does not obviously include the generation of electricity although I accept that some may see electricity as a 'good'.

7.7 In order to remove the present ambiguity, a more appropriate response would be to provide explicit recognition of the abstraction of

[4] MELL Ltd, Submission on Horizons One Plan, p26
[5] Page 423, Haper Collins Publishers, Collins English Dictionary & Thesaurus – Essential Edition, Third Edition 2007.

water associated with hydroelectric power generation. Not only would such a provision improve the transparency of Table 6.2, and thus represent good planning and resource management practice, it would be an effective way of giving effect to the PNPS and Section 7(j) of the Act.

7.8 I note that the 'Bay of Plenty Regional Land and Water Plan' specifically identifies existing Hydroelectric Power Schemes under Policy 66(d). While this policy requires existing schemes to have regard to instream minimum flows, the value of investment by the consent holder is also taken into account. Such an approach is appropriate as it accords with the outcomes sought by the Act. Consequently, it represents a good example of how Policy 6-1 could be redrafted.

7.9 In light of the above, I support the relief requested by MEL as stated within paragraph 7.3 of my evidence and recommend that Table 6.2 be amended so that it explicitly provides for hydroelectric power generation, or a definition of 'Industrial abstraction' be included within the Proposed Plan that includes takes for the purpose of hydroelectric power generation.

8.0 Policy 6-12 Reasonable and Justifiable Use of Water

Reasons For Submission

8.1 Policy 6-12 currently reads:

> *"The amount of water taken by resource users shall be reasonable and justifiable for the intended use. In addition, the following specific measures for ensuring reasonable and justifiable use of water shall be taken into account when considering consent applications to take water for irrigation, public water supply* or industrial use, and during reviews of consent conditions for these activities.*
>
> *(a) For irrigation, resource consent applications shall be required to meet a reasonable use test in relation to the maximum daily rate of abstraction, the irrigation return period and the seasonal or annual volume of the proposed take. When making decisions on the reasonableness of the rate and volume of take sought, the Regional Council will:*
>
> *(i) consider land use, crop water-use requirements, on-site physical factors such as soil water-holding capacity, and climatic factors such as rainfall variability and potential evapo-transpiration*
>
> *(ii) assess applications either on the basis of an irrigation application efficiency of 80% (even if the actual system being used has a lower application efficiency), or on the basis of a higher efficiency where an application is for an irrigation system with a higher efficiency*

(iii) link actual irrigation use to soil moisture measurements in consent conditions.

(b) For industrial uses, water allocation shall be calculated where possible in accordance with best management practices for water efficiency for that particular industry.

(c) For public water supplies, the following shall be considered to be reasonable:

(i) an allocation of 300 litres per person per day for domestic needs, plus
(ii) an allocation for commercial use equal to 20% of the total
allocation for domestic needs, plus
(iii) an allocation for industrial use calculated, where possible, in accordance with best management practices for water efficiency for that particular industry, plus
(iv) any allocation necessary to cater for the reasonable needs of livestock or agricultural practices that are connected to the public water supply system, plus*
(v) an allocation necessary to cater for growth, where urban growth of the municipality is zoned and is reasonably forecast, plus
(vi) an allocation for leakage equal to 15% of the total of subsections (i) to (v) above.

Where the existing allocation for a public water supply exceeds the allocation calculated in accordance with subsections (i) to (vi) above, the Regional Council will establish, in consultation with the relevant Territorial Authority, a timeframe by which the existing allocation shall be reduced to the calculated amount."*

8.2 MEL opposed Policy 6-12 stating that it does not provide any direction for the future takes or uses of water for hydroelectric power generation facilities and/or provision of water for infrastructure. MEL sought that paragraph 1 of Policy 6-12 be amended to read:

"The amount of water taken by resource users shall be <u>that required for the intended use</u>. <u>In addition, the following specific measures shall be taken into account</u> when considering consent applications to take water for irrigation…etc."[6]

8.3 MEL also sought that the following be added to Policy 6-12:

<u>"(d) For hydro electricity generation purposes, water allocation shall be calculated to allow the continued availability of water currently used."</u>

<u>Officer's Report</u>

[6] Meridian Energy Ltd, Submission on Horizons Regional Council Proposed One Plan, p31

8.4 The Officer recommends that MEL's submission be rejected as the term 'industrial use' is considered to be broad enough to cover hydroelectric power generation.

Comments

8.5 I have already set out my concern with respect to the use of the term 'industrial abstraction' in paragraph 7.5 of my evidence. I have the same concern regarding the term 'industrial use' which is also not defined by the Proposed Plan. Again, I am of the opinion that a better approach would be to explicitly recognise the use of water associated with the generation of electricity.

8.6 In coming to this conclusion I note that strengthening Policy 6-12 so that it affords a degree of protection to the provision of water for existing renewable generation facilities is consistent with good resource management practice. In this regard, while existing electricity generation activities almost certainly resulted in adverse environmental effects when they were constructed, most are now an accepted and essential part of the environment. Indeed I am aware of an Environment Court case where an existing hydroelectric power scheme[7] was found to be, for all practicable purposes, a permanent feature in the environment and, as such, something that required sustainable management and protection[8].

8.7 Given the above, I recommend that Policy 6-12 be amended to read:

> *"The amount of water taken by resource users shall be that required for the intended use. In addition, the following specific measures shall be taken into account when considering consent applications to take water for irrigation, public water supply* or industrial use, and during reviews of consent conditions^ for these activities.*
>
> …
>
> *(d) For hydro electricity generation purposes, water allocation shall be calculated to allow the continued availability of water currently used."*

9.0 Policy 6-13 Efficient Use of Water

Reasons For Submission

9.1 Policy 6-13 states:

> *"Water shall be used efficiently, including by the following measures:*
> *(a) requiring water audits and water budgets to check for*

[7] The Waipori Hydroelectric Power Scheme, Otago, New Zealand
[8] Refer *Save Mahinerangi Society Incorporated v Otago Regional Council (C1/2004)*

leakages and water-use efficiency
(b) requiring the use of, or progressive upgrade to, infrastructure for water distribution that minimises use and loss of water*
(c) enabling the transfer of water permits
(d) raising awareness about water efficiency issues and techniques
(e) installing water metering and telemetry to monitor water use."

9.2 MEL sought that clause (a) of Policy 6-13 be amended to read:

> *(a) Requiring water audits and water budgets to check for leakages and water use efficiency, <u>except for in the circumstance of hydro electricity generation operations, which are exempt.</u>*

9.3 MEL supported the intent of clause (e) of Policy 6-13 to require water metering and telemetry on water takes. MEL stated that *"such an approach is considered important to ensuring that the Council is able to accurately manage the water resources of the region and to track when and for what activities water is being used."*[9]

9.4 MEL requested that the Council retain clause (e) of Policy 6-13 and extend the requirement to meter water takes to those takes which are also permitted activities.

<u>Officer's Report</u>

9.5 The Officer recommends that MEL's submission on clause (a) be rejected as efficiency is an issue of relevance to all abstractions and should be considered.

9.6 The Officer also recommends that MEL's submission on clause (e) be rejected stating that water metering is not considered appropriate as a permitted activity standard.

<u>Comments</u>

9.7 Hydroelectric power generation is, in my opinion, a consumptive use in that it takes water from a watercourse and/or disrupts its flow, and thus its availability for other (primarily downstream) users. I do not, however, accept that all consumptive uses are the same, and thus should be treated in the same way. In this regard, irrigation takes and abstractions for stockwater or potable supply tend to remove water from a catchment. Hydroelectric power generation, however, tends to abstract and use water and then return it, making it available to other users downstream. Given that there generally is no net loss of water associated with hydroelectric power generation, water audits and water budgets would not provide any further useful insight to that type of abstraction and use.

[9] Meridian Energy Ltd, Submission on Horizons Regional Council Proposed One Plan, p32

9.8 I note, for completeness that the use of water at both MHEPS and PHEPS is metered. Given, this and the fact that both Schemes exist (and thus their impact of the hydrology catchments that accommodate them is well known) I see little benefit or need for water audits and water budgets to be established for these Schemes.

9.9 In light of the above, I recommend that Policy 6-13(a) be amended to read:

> *(a) Requiring water audits and water budgets to check for leakages and water use efficiency, <u>except for in the circumstance of hydroelectric power generation operations, which are exempt.</u>*

10.0 Policy 6-16 Core Water Allocation and Minimum Flows

<u>Reasons For Submission</u>

10.1 Policy 6-16 reads:

> *"(a) The taking of surface water shall be managed in accordance with the minimum flows and core allocations set out for each water management zone* in Schedule B.*
>
> *(b) The minimum flows and core allocations set out in Schedule B shall be assessed after any takes for hydro electricity generation have been taken. The only exception to this will be the hydro electricity takes from Zone Whau_3c."*

10.2 KCE submitted to Policy 6-16 stating that existing water users need to be recognised as a potentially affected party in relation to resource consent applications for new takes or increases to existing takes.

10.3 KCE noted in their submission that the Piriaka Hydroelectric Power Scheme had not been taken into account in Schedule B, which in turn reflected that this Policy had not been given full effect.

<u>Officer's Report</u>

10.4 The Officer did not address KCE's submission to Policy 6-16.

10.5 The Section 42A report prepared by Dr. Roygard to specifically address the water allocation framework recognises that;

> "*many of the existing hydroelectricity consents that are abstractive are located in the upper catchments, and flow recorders downstream of these provide flows records after abstraction by the hydroelectricity consents. Therefore, calculating any remaining allocation after the abstraction for hydroelectricity reflects a pragmatic approach to setting minimum flows and allocation limits from the residual recorded*

flows."[10]

10.6 The Officer's Report recommends that clause (b) of Policy 6-16 be amended to read:

> *(b)The minimum flows and core allocations set out in Schedule B shall be assessed after any takes lawfully established at the time the plan becomes operative for hydro electricity generation have been taken. ~~The only exception to this will be the hydro electricity takes from the Zone Whau_3c.~~"*

Comments

10.7 I have previously expressed the view that:

a. all hydroelectric power generation facilities are nationally significant[11]; and

b. while consumptive, hydroelectric power generation needs to be treated differently to other consumptive users of water[12].

10.8 While I support the intent of Policy 6-16, I remain of the view that it must be amended so that all takes for hydroelectric power generation should be excluded from the core allocation established by this policy. Put another way, I maintain (based upon the arguments set out within paragraph 9.7 of my evidence) the opinion that hydroelectric power generation deserves particular recognition and should be excluded from the allocation regime that applies to consumptive takes that do not return the water abstracted to the river.

10.9 In light of this, I recommend that Policy 6-16 be amended to make it clear that this policy applies to both existing and new takes for renewable hydroelectric power generation.

11.0 Policy 15-1 Consents Decision-Making for Takes and Uses of Surface Water and Groundwater

Reasons For Submission

11.1 Policy 15-1 reads:

> *"When making decisions on resource consent applications, and setting consent conditions, for takes and uses of surface water the Regional Council will:*
> *(a) recognise and provide for the provisions of Chapter 6, in particular the Policies in Section 6.4.3*
> *(b) seek to avoid any adverse effects on other lawful activities, particularly other water takes*

[10] Para 68, p41, Proposed One Plan – Section 42A Report of Dr Jonathan Kevin Fletcher Roygard
[11] See paragraph 5.2
[12] See paragraph 9.9

(c) have regard to the objectives and policies of Chapters 2, 3 and 7 to the extent that they are relevant to the activity."

11.2 MEL opposed Policy 15-1 as it refers to Schedule D. MEL sought to remove all reference to Schedule D from this Policy. MEL also sought to have the wording of clause (c) amended to be consistent with that contained in Part II, section 7 of the Act which requires 'particular regard' to be given to the benefits of renewable energy.

11.3 MEL sought the following relief as part of its submission:

Amend clause (c) to state that <u>particular</u> regard will be given to the policies in Chapter 3;

Add new clauses (d) and (e) as follows:

"(d) <u>enable non-consumptive uses of water including the use and recycling of water</u>

(e) <u>recognise and provide for people and communities to benefit from the use and development of natural and physical resources at a local, regional and national level</u>.[13]"

<u>Officer's Report</u>

11.4 The Officer's Report further recommends that MEL's submission be rejected and states that some of the concerns raised by the submitter may be addressed as a result of the re-organisation of the policy framework that will be included in the Officer's Supplementary Report.

<u>Comments</u>

11.5 As previously noted in paragraph 5.4 of my evidence, Section 7(j) requires all persons exercising functions and powers under the Act shall have *"have particular regard to … the benefits to be derived from the use and development of renewable energy".* Providing wording consistent with the Act represents good resource management practice. This wording has also been tried and tested, and there is sufficient case law surrounding it, which allows for clear interpretation.

11.6 With respect to the submission of MEL, I note that in the Collins English Dictionary and Thesaurus, 'particular' means "*very exact*"[14], and 'regard' means *"consider"*[15]. It therefore stands that to incorporate the words *"particular regard"* mean very exact consideration must be had of the benefits of renewable energy, and to remove the word 'particular' would only require the consideration of the benefits. It therefore stands that by incorporating the word 'particular' into Policy

[13] Meridian Energy Ltd, Submission on Horizons Regional Council Proposed One Plan, p64
[14] Page 590, Haper Collins Publishers, Collins English Dictionary & Thesaurus – Essential Edition, Third Edition 2007.
[15] Page 680, Haper Collins Publishers, Collins English Dictionary & Thesaurus – Essential Edition, Third Edition 2007.

15-1, more weight will be required to be placed on the benefits of hydroelectric power generation.

11.7 In light of the above, I recommend that clause (c) of Policy 15-1 be amended, consistent with MEL's submission, to read:

> *(c) have particular regard to the objectives and policies of Chapters 2, 3 and 4 to the extent that they are relevant to the activity.*

12.0 Schedule B Takes and Uses of Surface Water Complying with Core Allocations

Reasons For Submission

12.1 KCE sought that the 'cumulative core allocation limit' set by the Proposed Plan acknowledge existing abstractions and allow for them. Under KCE's requested relief, any new take or proposed increase to an existing take would result in those individuals or organisations with an existing resource consent (allocation) being afforded 'potentially affected party' status.

12.2 In order to achieve the relief sought by KCE, Schedule B of the Proposed Plan would need to be amended to note that, for those water courses and water bodies that are deemed to be 'fully allocated', that the sum of the existing takes is the 'core allocation limit'. Similarly, the allocation regime would recognise the FIFS and LIFO concepts that I introduced in paragraph 12.10 of this statement, with existing, legally authorised takes being afforded priority of access over new proposals. Lastly, KCE requested that the PHEPS be acknowledged in Schedule B.

Officer's Report

12.4 The Officer's Report recommends a number of changes to Schedule B, which relate to minimum flows and core allocations.

12.5 The Section 42A Reports prepared by the Officers (relating to the water management framework and water allocation framework respectively[16]) recognise the importance of existing hydroelectric power generation schemes in the Region. Of note is that the MHEPS is specifically recognised. Ms. Hurdell's Report directly addresses this Scheme in section 3.5.10.4 of her Report[17]. There is no direct reference to the PHEPS within Dr. Roygard's or Ms. Hurndell's reports, however.

[16] It is noted that the Section 42A report prepared by Dr Jonothan Roygard relates specifically to the Water Management Framework and the Section 42A Report of Ms Raelene Hurndell relates to the Water Allocation Framework.

[17] Para 182, p60, Proposed One Plan – Section 42A Report of Ms Raelene Ellen Hurndell

Comments

12.6 While I support the acknowledgement of the allocation associated with the MHEPS, which has been directly addressed in the Proposed Plan, Schedule B fails to acknowledge existence of the PHEPS. It is my assumption that the Officers believe that the allocation associated with the PHEPS is provided for in Policy 6-16 of the Proposed Plan. However, there has been no specific acknowledgement of the PHEPS in either Dr. Roygard's or Ms. Hurndell's reports.

12.7 While the PHEPS may not be in the upper catchment of the Whanganui River, it still removes water from a section of the main stem of the river and returns it at a later point. Consequently, there is a small section of the Whanganui River, to the East of the Piriaka township, which has reduced flows due to the presence of the Scheme. Given that existing takes for the purposes of hydroelectric power generation are expressly provided for in Policy 6-16 of the Proposed Plan, it is, in my view, appropriate for the PHEPS to be acknowledged in the calculations associated with the core allocation available in this section of the Whanganui River.

13.0 Policy 15-5 Consent Review and Expiry

Reasons For Submission

Policy 15-5 reads:

> *"Resource consents to take water shall generally be reviewed, and shall generally expire, in accordance with the dates set out in table 11.1. At the time of consent review or expiry the Regional Council will allocate water resources within each water management zone* in accordance with*
> *Policy 15-1 and in a manner which:*
>
> *(a) allows for the taking of water by as many resource users as possible, within the allocable limits set in this Plan for the subject water management zone**
>
> *(b) allows takes in the following order of priority:*
> *(i) takes permitted under Rule 15-1 of this Plan and takes for the purpose of fire-fighting*
> *(ii) current resource consents that are due for review, taking into account records of past actual water usage*
> *(iii) current resource consents that are expiring and have been reapplied for at least 6 months prior to the expiry date for that*
> *consent, taking into account records of past actual water usage*
> *(iv) new resource consent applications for essential takes, being takes providing for domestic use, hospitals and freezing works*

(v) all other new resource consent applications based on the date of lodgement of the application."

13.1 MEL lodged a number of further submissions supporting a variety submissions which opposed Policy 15-5. MEL had significant concerns with Policy 15-5 and Table 11.2 which specify common expiry dates for resource consents. MEL sought that Policy 15-5 be deleted.

Officer's Report

13.3 The Officer recommends that MEL's further submissions be rejected and that Policy 15-5 remain in the Proposed Plan.

Comments

13.5 Hydroelectric power generation schemes are significant assets with a very long investment 'return period'[18]. Given the size of the investment required to develop and maintain these assets, hydroelectric power generators require the greatest economic and investment certainty that can be conveyed while not cutting across the purpose of the Act. Put another way, to invest in a hydroelectric power generation scheme there needs to be some certainty regarding the prospect of securing consents for a reasonable period. All potential developers and existing asset owners require payback and a reasonable return on investment. In my opinion this 'reality' supports the contention that longer term resource consents, that reflect the circumstances faced by different hydroelectric power scheme proposals, are appropriate.

13.6 Furthermore, I note that the type and scale of the effects associated with existing hydroelectric power generation schemes are well known. Indeed the PHEPS and MHEPS have been in place for around 85 years, both having been commissioned in 1924. Existing resource consents held for both of these Schemes contain a number of conditions that address such effects and enable periodic reviews. The review processes enables a periodic review of the consent conditions and, as circumstances dictate, enables further public involvement. This is, in my opinion, appropriate as it provides the investment certainty needed, reflects the 'known effects' associated with existing schemes but provided for redress should environmental outcomes necessitate further investigation and/or mitigation/remediation.

12.7 There is not, in my opinion, sufficient 'uncertainty*'* associated with the magnitude of the effects the Scheme's could generate to justify a short term of consent or a presumption in favour of the same.

12.8 Turning to allocation, I support the Officer's recommendation to remove the words *"as many resource users as possible"* from Policy 15-5. The first in, first served ('**FIFS**') and last in, first out **('LIFO**') approaches to water allocation is, in my opinion, the most appropriate

[18] By this I mean that it takes a long time for the investor to recover its investment with a sufficient economic return.

default water allocation mechanism as it removes the need for the Council to 'pick winners'. Picking winners requires, by its very nature, a Council (or body) to assess the value of competing uses to society, to project the likely level of demand for those uses and then to establish an allocation regime that makes sufficient provision for the most appropriate division of water between the uses. While there may be circumstances where this can effectively and robustly be completed, I question whether it is the appropriate default position. In effect, such an approach is built upon a series of projections based upon assumptions about water use.

12.9 A preferable approach, in my opinion, is one where an allocation block is established and market mechanisms enable the exchange and transfer of water between uses. Clearly, for such a system to work, there must be an ability for consent holders to transfer all or part of their resource consents to other aspirant users. I believe that Policy 15-6 promotes an adequate consent transfer system in terms of s 136(2)(b)(ii) of the Act.

12.10 The FIFS and LIFO approach to water allocation underlie my preferred allocation system. In this respect they provide for the security of investment to existing consent holders (such as KCE and Todd) by ensuring that existing schemes, especially those that have been in place for a long period such as PHEPS and MHEPS, retain some priority over the access to water. FIFS and LIFO are well supported in case law[19] surrounding water allocation, giving priority to the earlier abstractors over those who have been extracting from a later date. This approach provides for the continued operation of schemes such as PHEPS and MHEPS, given the long standing nature of these Schemes.

12.11 I am concerned that the approach advanced by the Officer may involve the mandatory 'redistribution of water' from an existing consent holder to an aspirant user. Not only is the mandatory redistribution of water likely to be a hugely unpopular requirement, it would constitute a derogation of an existing right, would run contrary to the PNPS and could effect the viability of an existing operation (in effect sacrificing known benefits for projected or possible benefits). While there may be circumstances where such an outcome could be contemplated, they should be, in my opinion, the exception rather than the rule. In this regard, this approach could be retained as an alternative method for use if the market based alternative set out in paragraph 12.9 of this statement fails to achieve a desired outcome in a particular catchment or sub-catchment.

12.12 Lastly, I now discuss the concept of common expiry dates for catchments. The proposal advanced by the Proposed Plan and supported by the Officer would, in my opinion, cause an unnecessary level of uncertainty for the owners and operators of hydroelectric power generation schemes. In this regard, it could necessitate that all

[19] See Fleetwing Farms Limited v Marlborough District Council (1997), NZRMA 385

resource consents within a catchment be limited by the shortest term that applies. Put another way, it could result in the term of a resource consent for an existing hydroelectric power scheme (where the environmental effects are typically well understood) being the same as a new activity (where the effects are not understood as well). I do not believe that such an outcome is necessary or accords with the Act. In this regard, I am sceptical that a 'one size fits all' approach can be developed for the Region. A case-by-case assessment of the appropriate term fitting the circumstances would, in my view, be a more valid and robust policy response.

13.13 In light of the foregoing, I recommend that Policy 15-5 refering to common expiry dates prescribed in Table 11.1 of the Proposed Plan, be deleted.

STRUCTURES IN THE BEDS OF RIVERS AND LAKES

14.0 Section 6.5 Methods

Reasons For Submission

14.1 MEL sought the inclusion of a Method that specifically relates to the use of rivers and lakes for hydroelectric power generation.

14.2 MEL's submission states that *"the method titled "Large Water Abstractors" refers to agricultural and industrial users, and public water supply purposes, but fails to separately acknowledge the biggest user of water in the Region and one which is specifically referred to in s7 of the RMA."*

Officer's Report

14.2 The Officer's Report does not specifically address the submission of MEL and does not recommend any changes to the Method titled '*Large Water Abstractors'.*

Comments

14.3 While it may be argued that activities associated with hydroelectric power generation may be considered to be classified *'industrial users'* as stated in the Method titled *'Large Water Abstractors'*, as I have previously discussed in paragraph 7.5 of my evidence, I do not consider that hydroelectric power generation fits within the definition of an *'industrial use'* without such definition being further defined by Proposed Plan.

14.4 I support the intent of the submissions by MEL, in that they seek to specifically provide for hydroelectric power generation within the Method titled *'Large Water Abstractors'* of Section 6.5 of the Proposed Plan. I agree that given the national significance of renewable energy and the scale of the water abstracted for the generation of hydroelectric power within the Horizon's Region, such a method is

appropriate. Indeed it should be noted that within his Section 42A Report, Dr. Roygard states that:

> *"(t)he hydroelectricity sector is by far the largest user of water in Horizons' Region, with an estimated average use of 55 m3/s or 4,752,000 m3/day"*[20].

14.5 In light of the above I recommend that the method titled *"Large Water Abstractors"* be amended to specifically include hydroelectric power generators as a party with whom to include.

15.0 Policy 16-1

Reasons For Submission

15.1 Policy 16-1 reads:

> *"When making decisions on resource consent applications, and setting consent conditions, for activities in, on, under or over the bed of a river or lake the Regional Council will:*
>
> *(a) recognise and provide for the policies regarding the beds of rivers and lakes in Section 6.4.4, and have regard to the other provisions of Chapter 6 where appropriate*
>
> *(b) have regard to the extent to which the activity is consistent with best management practices*
>
> *(c) seek to avoid where practicable any adverse effects on any other lawful activity in, on, under or over the bed of the river or lake, including existing structures*
>
> *(d) have regard to whether the activity is of a temporary nature or is associated with necessary maintenance work*
>
> *(e) recognise and provide for the provisions of Chapter 10 in relation to flood management."*

15.2 MEL supported the general intent of Policy 16-1, but sought the inclusion of an additional clause so as to *'better recognise the objectives and policies in Chapter 3, and s7 (i) and (j) of the RMA in relation to providing for renewable energy generation facilities.'*

Officer's Report

15.3 The Officer's Report recommends that MEL's submission be rejected as the Officer believes that when considering an application for resource consent, all of the relevant provisions of the Proposed Plan must be taken into account and not just those Objectives and Policies within Chapter 3.

[20] Para 41, p27, Proposed One Plan – Section 42A Report of Dr Jonathan Kevin Fletcher Roygard

Comments

15.4 As I have previously discussed within Section 5, paragraphs 5.1 to 5.6 of my evidence, the PNPS provides for 'all' renewable energy as being nationally significant. As such, I consider it appropriate to provide specifically for renewable energy generation facilities within Policy 16-1 of the Proposed Plan. I have also noted that section 7 of the Act requires particular regard to be given to *"the benefits to be derived from the use and development of renewable energy"*

15.5 Section 7(i) of the Act requires particular regard to be given to *"the effects of climate change".* Given the importance of renewable energy generation in combating climate change, it is considered that council should have particular regard to Section 7(i) when making decisions on resource consent applications for structures in the beds of rivers and lakes that have an association with renewable energy.

15.6 I therefore consider it appropriate that an additional clause be inserted into Policy 16-1 to recognise for the Objectives and Policies contained in Chapter 3 of the Proposed Plan as well as section 7(i) and (j) of the Act, consistent with MEL's original submission.

16.0 SUMMARY

16.1 In summary, I recommend that those provisions discussed within sections 5.0 to 15.0 of my evidence to the Proposed Plan be amended to ensure that they are consistent with the Resource Management Act 1991, the Proposed National Policy Statement for Renewable Electricity Generation, and to promote good resource management practice. More particularly I am of the opinion that the provisions must appropriately recognise and address the relevant actual and potential environmental effects (including positive effects / benefits) of water use and must not be inappropriately restrictive. For the reasons set out in this statement I do not believe that the Proposed Plan, as publicly notified, consistently achieves either of these requirements.

16.2 I thank the Committee for affording me the time to present this evidence.

David Schumacher (B.Soc Sci (Hons)) Assoc. NZPI)

19th October 2009

ANNEXURE 1 - LOCATION MAP

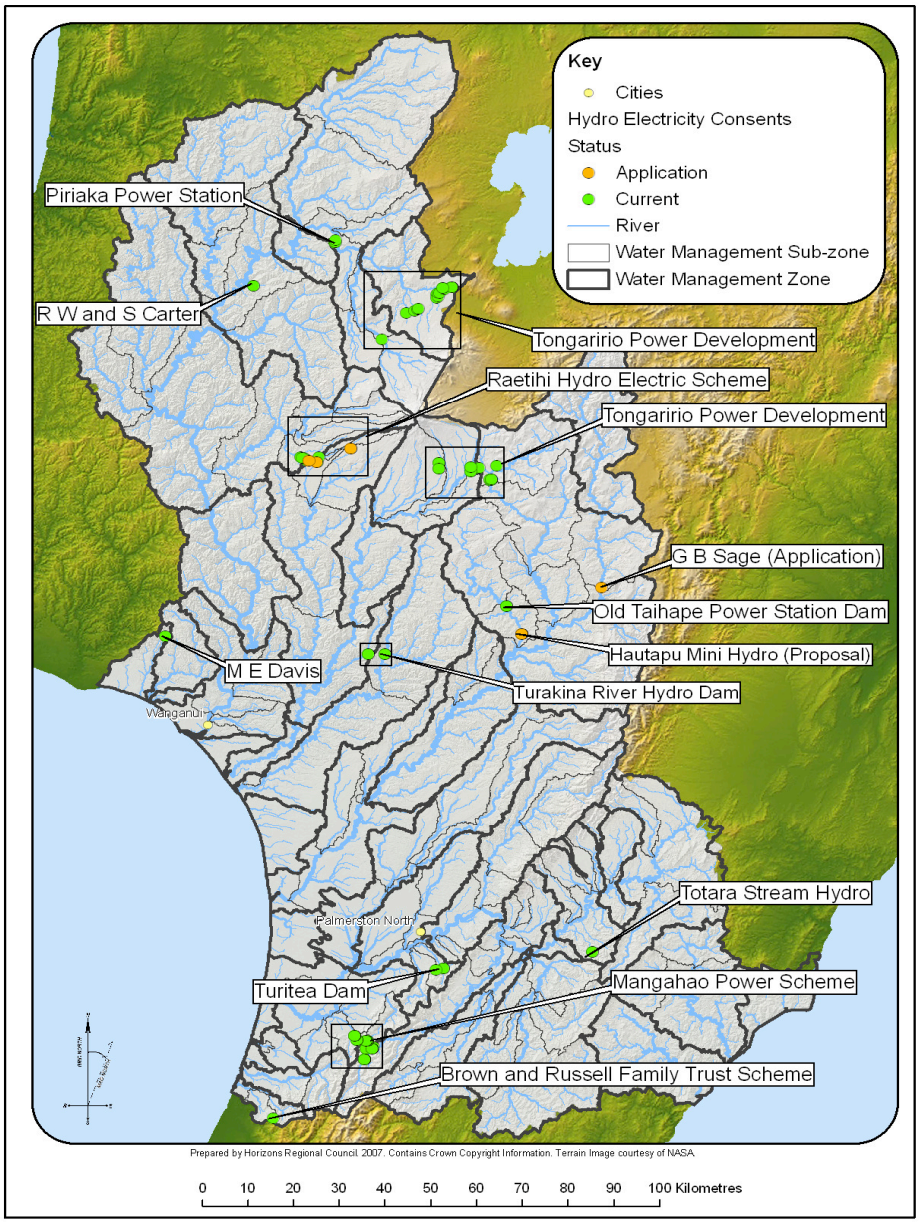

Figure 1. Locations of Consented Takes for Hydroelectric Power Generation in the Manawatu Wanganui Region (Taken from Map 2, Section 42A report of Dr Jonothan Kelvin Fletcher Roygard)