

**IN THE MATTER** of the Resource Management  
Act 1991

**AND**

**IN THE MATTER** Proposed One Plan notified by  
the Manawatu-Wanganui  
Regional Council, hearing  
related to Water

## **STATEMENT OF EVIDENCE OF ANDREW MICHAEL COLLINS**

### **1. INTRODUCTION**

#### **Qualifications and Experience**

- 1.1 My name is Andrew Michael Collins and I am a Director of Harrison Grierson Consultants Limited, a multi-disciplinary consulting company with six offices throughout New Zealand and one office in Brisbane, Australia. I am the Planning Director for our company and in that capacity I have an overview role for approximately 55 resource management planners, urban designers and landscape architects, based across all of our offices. I am based in Tauranga.
- 1.2 I hold a Bachelors Degree in Regional Planning (with First Class Honours), completed in 1987, and have 21 years planning and resource management experience since then. I have worked as a planner in both the public and private sector. I am a full member of the New Zealand Planning Institute and also a Member of the Resource Management Law Association of New Zealand. During my career I have been involved in a large number of resource consent, designation and plan making processes relating to both district and regional issues, and as a result have been involved in many local authority and Environment Court

hearings. While I have been involved with water allocation issues in one way or another for much of my career, I have found myself particularly involved in such issues over the last five years, primarily in relation to the Waikato River catchment. I was engaged by Mighty River Power Limited (Mighty River Power) in 2005 to provide planning evidence for Regional Council and Environment Court proceedings in relation to its submissions on large scale water take proposals by Plateau Farms Limited and Wairakei Pastoral Limited in the vicinity of Reporoa. Then, from 2006 until now, I have been engaged by Mighty River Power to provide planning evidence in relation to the Proposed Waikato Regional Plan Variation No. 6 "Water Allocation". This Variation is now in the appeal phase and I have an ongoing involvement as it proceeds towards a likely Environment Court hearing towards the end of 2010.

- 1.3 In relation to the Horizons Proposed One Plan, I have been engaged by Mighty River Power to provide my planning opinions in relation to the water quantity / water allocation aspects of the Plan (namely those provisions in Chapters 6 and 15 and associated Schedules). I was not involved in the preparation of Mighty River Power's submission or further submissions but I have reviewed them during the process of preparing this evidence.
- 1.4 In my current role as a Director of Harrison Grierson I undertake planning work for a wide range of clients throughout New Zealand. This work is typically of a strategic planning, project management, policy analysis or resource consent-related nature, and is undertaken for numerous local authority, government, utility and developer clients throughout the country.
- 1.5 I consider that the appropriate code of conduct is the Environment Court's Code of Conduct for Expert Witnesses. I have read this Code and can confirm that I have complied with it in the preparation of this statement of evidence. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

## Structure of Evidence

1.6 My evidence follows the format below

- Executive summary
- Setting the scene
- Overview of Proposed One Plan's water allocation framework and Mighty River Power's key concerns
- Chapter 6 (Water) - regional policy statement section
- Chapter 15 (Takes, uses and diversions of water) - regional plan policies and rules section
- Conclusion

## 2. EXECUTIVE SUMMARY

2.1 There are a number of documents that collectively provide a national policy context and statutory framework for plan making and decisions relating to water allocation and renewable energy in New Zealand. The New Zealand Energy Strategy, entitled "*Powering Our Future: Towards a sustainable low emissions energy system*" (October 2007) includes a policy target that 90 percent of electricity generated in New Zealand is to be derived from renewable energy sources by 2025. This policy target is reiterated in the proposed *National Policy Statement for Renewable Electricity Generation* which, while not yet having legal effect, is indicative of an evolving statutory framework which is increasingly providing direction to resource management decision makers about the importance of ensuring the security of our nation's electricity supply and, within that, the role of energy generation from renewable sources.

2.2 Mighty River Power's submission reflects its concern that, while renewable energy *infrastructure* of regional and national importance is covered by Chapter 3 of the Proposed One Plan (which was the subject of an earlier hearing), neither Chapter 3 nor Chapters 6 and 15 (the water allocation chapters which *are* a focus for this hearing) provide clear direction with regards to *resource use* for renewable electricity generation. In this regard, the lack of direction is reflected in the objectives, policies and rules – put simply, there is no clear allocation

framework for new takes and uses for hydro-electricity generation, and there is an inadequate “consent pathway” for such proposals. This is due to the rules being drafted in a manner which will assign non-complying activity status to any new hydro-electricity proposal, compounded by the absence of issue statements, objectives and policies that will allow the national and regional benefits of such generation to be balanced against any localised effects.

2.3 In sections 5 and 6 of my evidence, which address Chapters 6 and 15 respectively, I progressively (provision by provision) address Mighty River Power’s submission points and decisions sought, the Horizons staff report recommendations on each point, and finally my comments with specific suggested wording solutions. In summary, my resource management evaluations lead me to conclusions which recommend:

- Clear statements that water bodies may have potential value for hydro-electricity generation
- Inclusion of a reference to renewable energy generation in Objective 6-3 (being the “water quantity and allocation” objective from which later policies and rules are derived).
- A clear statement that takes, uses, dams and diversions for hydro-electricity purposes will be subject to site-specific assessment and will be considered on their merits by way of resource consent application processes and concurrent plan change processes so that the merits of the proposal and any consequent need to amend minimum flows and/or core allocations may be considered together; and amendments to Rule 15-6 so that new takes for hydro-electricity generation will be discretionary activities under Rule 15-8.
- Retention of the current approach to existing hydro-electricity generation activities, namely their exclusion from core allocations.
- Amendments to Policy 6-19 and 15-5 to recognise takes for hydro-electricity generation (where operating in accordance with conditions of consent, which will inevitably include low flow requirements) as

“essential takes” for the purposes of applying water take restrictions during times of low flow, and for the purpose of prioritising new consent applications at the time of consent review and expiry.

- Better recognition in the policies and rules that groundwater is interconnected with surface water and that, in catchments containing downstream hydro-electricity schemes, groundwater takes can, on their own or cumulatively, affect such schemes.
- Better and more consistent cross-referencing in Chapter 15 to Chapter 3.
- A number of other specific amendments which, in combination with the above changes, will ensure that the Proposed One Plan is consistent with the purpose and principles of the Resource Management Act 1991 and other other existing (and evolving) national policy and statutory guidance.

### **3. SETTING THE SCENE**

- 3.1 Before discussing the changes requested by Mighty River Power in its submission, I would like to “set the scene” in order that the policy and statutory context for its submissions are understood. I understand that some of the material in this section has been covered previously in the evidence presented by Mr Richard Peterson to the Overview hearing and the Infrastructure and Waste (Chapter 3) hearing and the related evidence presented by Mr Rob Hunter. However, in this evidence I have focused more narrowly on the policy and statutory context that I consider to be relevant for this Water hearing and particularly water allocation aspects.

#### **National policy context**

##### *New Zealand Energy Strategy*

- 3.2 In October 2007, the government adopted the *New Zealand Energy Strategy (NZES)* in response to the fact that New Zealand’s energy demand has been growing steadily for many years and this trend is

forecast to continue. The NZES stated that New Zealand must confront two major energy challenges as it meets growing energy demand over the period to 2050. The first is to respond to the risks of climate change by reducing greenhouse gas emissions caused by the production and use of energy. The second is to deliver clean, secure, affordable energy while treating the environment responsibly.

3.3 The NZES is entitled "*Powering Our Future: Towards a sustainable low emissions energy system*" (Oct 2007). It is based on the following two principles (page 17):

1. *Investment should occur in energy efficiency measures where this is cheaper than the long-term costs of building extra generation capacity, including environmental costs.*
2. *For the foreseeable future, it is preferable that all new electricity generation be renewable, except to the extent necessary to maintain security of supply.*

3.4 One of the seven focus areas for the NZES is the promotion of renewable energy. The NZES states (at page 20) that:

*"It is in New Zealand's longer-term economic and environmental interests to meet increases in demand through an economic mix of renewable energy sources that will meet our security objectives. ...In this strategy, the government is introducing a target for 90 percent of electricity being generated from renewable sources by 2025.... **To achieve this outcome, a very high rate of investment in new renewable generation, lower utilisation of existing fossil fuel plant and decommissioning of older fossil fuel plant is required.**"*

3.5 Climate change considerations, and a desire to reduce greenhouse gas emissions, is one of the key drivers of the NZES. The NZES states (at page 36) that:

*"Aggressively pursuing existing and new renewable-based electricity generation drives the majority of the (planned) emissions reductions"*

3.6 The NZES, including its policy target that 90 percent of electricity generated in New Zealand is to be derived from renewable energy sources by 2025, remains a key strategy for the current National Government. This is one of the drivers behind the Proposed National Policy Statement for Renewable Electricity Generation which I shall discuss below under the "statutory context" section.

*New Start for Fresh Water*

3.7 In June 2009, the current National government announced a new strategy for water management in New Zealand called *New Start for Freshwater*, which effectively supersedes the previous Government's Sustainable Water Programme of Action. The new Strategy continues to place a priority on the completion of the following documents, all of which I shall discuss below under the "statutory context" section of my evidence:

- Proposed National Policy Statement for Freshwater Management;
- National Environmental Standard for Measurement of Water Takes; and
- National Environmental Standard on Ecological Flows and Water Levels

A stakeholder-led consultation process via the Land and Water Forum, and scoping work for policy options relating to water quality, water allocation and water infrastructure is all underway with a view to releasing an implementation package by the end of 2011. This work is expected to dovetail in with water management aspects in the pending phase 2 of the Resource Management Act 1991 (RMA) reforms.

3.8 I mention this as the *New Start for Freshwater* strategy recognises that the development of a fair and efficient water management system is a priority for New Zealand and that sound water management is not solely an environmental issue, but is also essential to the pursuit of sustainable economic development. The Government aims to ensure that water contributes to New Zealand's economic growth and environmental integrity by, amongst other things <sup>1</sup>:

- setting resource limits to shape water quality and allocation actions; and
- developing an allocation regime that provides for ecological and public purposes and then maximises the return from the remaining water available for consumptive use

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<sup>1</sup> Source: The Implementing the New start for Fresh Water Cabinet Paper, MfE website

3.9 Having briefly considered the current and emerging national *policy* context relating to energy and freshwater management, it is now appropriate to turn to the current and emerging national *statutory* context which is relevant for this hearing.

### **Statutory framework**

#### *Current statutory framework*

3.10 Sections 59 and 63 of the RMA state the purpose of regional policy statements and regional plans respectively, and both refer to achieving the purpose of the Act. So, as with all processes under the RMA, the purpose and principles set out in Part II of the Act (ss 5, 6, 7 and 8) are paramount considerations for the Council when considering submissions on the Proposed One Plan.

#### *Section 5, RMA*

3.11 The ultimate purpose of the water chapters of the Proposed One Plan must be "*to promote the sustainable management of natural and physical resources*" of water catchments within the Manawatu-Wanganui Region (as per s5 of the RMA). Inherent in this is a mandate to manage the use, development and protection of natural and physical resources in a way that enables people and communities to provide for their social, economic, cultural well-being while:

- (a) sustaining the potential of resources to meet the reasonably foreseeable needs of future generations; and
- (b) safe-guarding the life-supporting capacity of air, water, soil and ecosystems; and
- (c) avoiding, remedying or mitigating any adverse effects of activities on the environment.<sup>2</sup>

3.12 There certainly appears to have been a robust research effort by the Regional Council to identify and safeguard the bottom lines in s5(2)(a), (b) and (c) above through such methods as:

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<sup>2</sup> Section 5(2)(a), (b) and (c) of the RMA



- water management zones (Schedule Ba, Part Ba1); and
- surface water management values (Schedule Ba, Part Ba2 which comprises sections Ba2.1 and Ba2.2); and
- surface water allocation limits and minimum flows (Schedule B, Table B1)

3.13 However, when I review the Proposed One Plan provisions it seems to me that some of the enabling aspects of the Act's purpose (ie. enabling people and communities to provide for their social, economic, cultural well-being) are less well provided for, at least from the perspective of a planning framework that provides a clear application path for projects involving electricity generation from renewable energy resources.

3.14 The community places great value on having a reliable electricity supply and that simply cannot be taken for granted. Electricity is used in every aspect of life in New Zealand. It is essential for the functioning of urban and rural communities, supporting business, industry and agriculture. Our houses and lifestyles are dependent upon electricity to maintain a healthy and secure environment, providing such essential amenities as hot water and home lighting and heating. It is a service that the public view as of wider benefit to the community in a way not dissimilar to a reliable water supply. The national State of the Environment report released in 2007 recognises this and states: "*Energy is an essential part of everyday life. Fuels and electricity power our transport systems, heat our buildings, and produce the goods and services that underpin New Zealand's economic and social wellbeing*"<sup>3</sup>

3.15 There are alternative methods to supply energy to homes and businesses but electricity remains, and will remain, the primary energy source for these purposes. So, electricity is essential to *enable people and communities to provide for their social and economic well being and for their health and safety* (a central premise of sustainable management as defined in s5) and, with reference to s5(2)(a), it is "*reasonably foreseeable*" and, in fact well documented, that the country's need for

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<sup>3</sup> Ministry for the Environment, "Environment New Zealand 2007", page 103

electricity will continue to grow significantly into the future. The NZES referred to previously, only serves to highlight the critical importance of developing new renewable sources.

*Section 6, RMA*

3.16 The Council is required by s6 of the RMA to "recognise and provide for" the following "matters of national importance":

- (a) *The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use and development;*
- (b) *The protection of outstanding natural features and landscapes from inappropriate subdivision, use and development;*
- (c) *The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna;*
- (d) *The maintenance and enhancement of public access to and along the coastal marine area, lakes and rivers;*
- (e) *The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, wahi tapu and other taonga;*
- (f) *The protection of historic heritage from inappropriate subdivision, use and development;*
- (g) *The protection of recognised customary activities.*

3.17 In my opinion, the Proposed One Plan (read in its entirety, as opposed to a consideration of just the water allocation parts) does a good job of recognising and providing for the "preserving and protecting" aspects of s6. However, in doing so, it manages to constrain not just "inappropriate use and development" (as per s6(a) and (b)) but also some use and development (such as that for renewable energy generation) which may well be regarded as "very appropriate" in some circumstances. A reasonable balance is achievable and this is what Mighty River Power is seeking in its submissions. .

*Section 7, RMA*

3.18 The Council is required by s7 of the RMA to "have particular regard" to the specified "other matters" listed in that section which are:

- (a) kaitiakitanga*
- (aa) the ethic of stewardship*
- (b) the efficient use and development of natural and physical resources*
- (ba) the efficiency of the end use of energy*
- (c) the maintenance and enhancement of amenity values*
- (d) intrinsic values of ecosystems*
- (f) maintenance and enhancement of the quality of the environment*
- (g) any finite characteristics of natural and physical resources*
- (h) the protection of the habitat of trout and salmon*
- (i) the effects of climate change*
- (j) the benefits to be derived from the use and development of renewable energy*

3.19 As I noted in para 3.12 above, the Regional Council is to be commended for its robust approach to identifying and protecting ecological and other values and for its particular regard to matters such as set out in s7(c), (d), (f), (g) and (h) above. However I would like to comment briefly on those clauses that are particularly relevant to Mighty River Power's submission on water allocation issues, namely, s7(b) and (j).

3.20 With regard to s7(b), I should note first that Mighty River Power does not seek to challenge the core allocations and minimum flows set out in Table 2 of the Proposed One Plan. The region-wide modelling of instream habitat and other water resource assessments undertaken for this regional process have been as robust as reasonably practicable yet, as recognised by experts such as Dr John Hayes for the Regional Council (in his para 41), they are precautionary. He appears to accept that detailed assessments for specific watercourses (such as would be expected as part of an Assessment of Environmental Effects (AEE) for any significant water take, use, dam or diversion proposal) will yield more

site-specific information and enable more focused evaluations as to the relative merits of a proposal.

- 3.21 So, a key theme of Mighty River Power's submission is to ensure that a reasonable "consent pathway" is available for it, with appropriate objectives, policies and rules in the plan, to have any future hydro-electricity proposal considered on its merits having regard to environmental issues and national and regional benefits, in the context of the abovementioned policy and statutory framework. This is consistent with s7(b), the *efficient use and development of natural and physical resources*.
- 3.22 With regard to s7(j), this is a particularly relevant sub-section for the Council's decision making process. The introduction of this subsection into the RMA in March 2004 signifies a clear recognition by Parliament of the importance of the use and development of renewable energy. Particular regard is to be had to the benefits to be derived from the use and development of renewable energy and I submit that it is appropriate to bear this in mind as Mighty River Power's submissions are considered.

*Section 8, RMA*

- 3.23 Section 8 requires the principles of the Treaty of Waitangi to be taken into account. I am not the best-placed to comment on these aspects and would defer to Iwi submitters who I expect will expand on their values associated with the rivers and water bodies of the Manawatu-Wanganui Region.

*Pending changes to the statutory framework*

- 3.24 I wish now to refer to a number of pending changes to the statutory framework which, while not yet of statutory effect, are nevertheless relevant considerations to note in relation to the subject matter of this hearing.

*Proposed National Policy Statement for Renewable Electricity Generation*

3.25 I mentioned in para 3.6 above that a National Policy Statement for Renewable Electricity Generation (proposed NPS) is in the process of being introduced. A proposed NPS has been released, and a Board of Inquiry has heard submissions from submitters. It is expected to report back to the Government early in 2010 and once the NPS has been finalised and approved by the Government, it will come into force the day after it is notified in the Gazette.

3.26 The proposed NPS states that *“the need to develop, upgrade, maintain and operate renewable electricity generation activities throughout New Zealand”* is a matter of national significance. It then confirms the objective from the New Zealand Energy Strategy that 90 percent of electricity generated in New Zealand is to be derived from renewable energy sources by 2025. The proposed NPS then states five policies under the following headings:

- Recognising the national significance of the benefits of renewable electricity generation activities.
- Acknowledging the practical constraints associated with the development, upgrading, maintenance and operation of new and existing renewable electricity generation activities.
- Having regard to the relative reversability of adverse effects associated with particular generation types.
- Enabling identification of renewable electricity generation possibilities.
- Supporting small and community scale renewable electricity generation.

3.27 Assuming the NPS comes into force it is likely that there will be a number of changes required to regional policy statements and plans throughout the country.

*Proposed National Policy Statement for Freshwater Management*

3.28 I mentioned in para 3.7 above that a National Policy Statement for Freshwater Management is in the process of being introduced. A

proposed NPS has been released, and a Board of Inquiry completed its hearing of submissions in September 2009. It is expected to report back to the Government in January 2010, and it is expected to be finalised, approved and gazetted during 2010. The proposed NPS contains 9 objectives and 9 policies and I don't intend to go through all of them in this evidence. It is sufficient to say that the approach taken by the Regional Council in the Proposed One Plan places it in good stead for when the NPS comes into force. The objectives and policies of the Proposed One Plan are, to a significant extent, consistent with those of the Proposed NPS. Objective 1 of the Proposed NPS is *"to ensure that Freshwater Resources are managed in a way that enables the people and communities of New Zealand to provide for their social, economic and cultural well-being and their health and safety"* and the Hearing Panel will note the similarity of this wording to that of s5 of the RMA. Mighty River Power's submission is consistent with this proposed Objective as it aims to strengthen the enabling aspects of the Proposed One Plan, specifically in terms of better enabling electricity generation from renewable energy resources (whilst still avoiding, remedying or mitigating adverse effects on important environmental and other values).

*Proposed National Environmental Standard on Ecological Flows and Water Levels*

- 3.29 Finally, in terms of pending changes to the statutory framework, I note that submissions closed in August 2008 in respect of the Proposed National Environmental Standard on Ecological Flows and Water Levels (NES) My understanding is that a final proposal and legal drafting of the NES has yet to occur, but the current Government is committed to completing this process, at which time the NES will have the force of a regulation. For the Proposed One Plan, the Regional Council has, with its identification of instream values, water resource assessments and setting of allocation limits and minimum flows, followed an approach which is generally consistent with the proposed NES.

### **Having set the scene ...**

3.30 It is hoped that the above overview of the national policy context (existing and emerging) and the statutory context (existing and emerging) for water allocation and renewable energy issues has been useful in terms of understanding the rationale behind Mighty River Power's submission, to which I shall now turn.

## **4. OVERVIEW OF PROPOSED ONE PLAN'S WATER ALLOCATION FRAMEWORK AND MIGHTY RIVER POWERS' KEY CONCERNS**

4.1 In this section of my evidence, I will provide a brief outline of the water allocation framework in the Proposed One Plan, and then a summary of Mighty River Power's key concerns.

4.2 In respect of surface water and groundwater allocation, the Proposed One Plan is structured as follows:

### **Chapter 6 (Water) - in Regional Policy Statement section**

4.3 *Background and issues (sections 6.1 and 6.2)*

- provides some background to water quantity issues in the Region (section 6.1.3);
- identifies that water quantity and allocation is a significant resource management issue in the Region (section 6.2, Issue 6-2);

4.4 *Identification of water management zones and values*

- establishes water management zones and sub-zones in respect of surface water in the region, and groundwater management zones in respect of groundwater in the region (Schedule Ba, Part Ba1);
- identifies surface water management values (Schedule Ba, Part Ba2 which comprises sections Ba2.1 and Ba2.2);

#### 4.5 Objectives (section 6.3)

- Objective 6.1 states that water bodies will be managed in a manner that sustains their life-supporting capacity and that recognises and provides for the values in Schedule Ba (and I note that the Horizons officers recommend adding “by 2030”);
- Objective 6.3 enables reasonable take and use of water, while making provision for, amongst other things, allocation limits and minimum flows, and restricted takes during times of water shortage;

#### 4.6 Policies (section 6.4)

##### Water management framework policy (section 6.4.1)

- Policy 6-1 refers to the water management zones, sub-zones and values in Schedule Ba and states that surface water shall be managed for each sub-zone in accordance with minimum flows and allocation limits in Schedule B, Table B1; and that groundwater shall be managed in accordance with the allocation limits in Schedule C;

##### Water quantity and allocation policies (section 6.4.3)

- Policies 6-12, 6-13 and 6-14 apply to both surface water and groundwater and set out guidelines for reasonable water use for irrigation, industrial and public water supplies (in Policy 6-12); and a requirement for water to be used efficiently, including reference to water audits, water budgets, infrastructure upgrading, transfers of water permits, education and monitoring (in Policy 6-13); and direction to consider water storage and alternatives (in Policy 6-14);
- Policies 6-15 to 6-20 apply just to surface water. They set up a policy framework whereby:
  - Policy 6-16: takes of surface water shall be managed for each sub-zone in accordance with minimum flows and allocation limits (core allocations) in Schedule B, Table B1.



- Policy 6-17: explains that where good hydrological information is not available, minimum flows are generally expressed as the estimated mean annual low flow (MALF) with core allocation limits expressed as a percentage of the MALF. Where good hydrological information is available, specific minimum flows and core allocation limits are expressed in m<sup>3</sup>/s.
- Policy 6-18: provides for supplementary allocations (i) where flows are above median flow and the proposed take does not exceed 10% of the natural flow at the time; or (ii) in specified other circumstances where there will be no significant departure from the river's normal flow and low flow regime, and there will be no adverse effect on the values in schedule Ba, and no person's core allocation will be affected.
- Policy 6-19 provides for apportioning and restricting takes at times of low flow, and, in doing so, specifies "essential takes" and "non-essential takes".
- Policies 6-21 to 6-26 apply just to ground water. They set up a policy framework whereby (amongst other things):
  - Policy 6-21 and 6-23: Takes of groundwater shall be managed to comply with annual allocable volumes for each groundwater management zone in Schedule B, Table B1.
  - Policy 6-24 addresses the effects of groundwater takes on other groundwater takes.
  - Policy 6-25 addresses the effects of groundwater takes on surface water bodies.

**Chapter 15 (Takes, uses and diversions of water) - in Regional Plan section**

4.7 *Policies (section 15.1)*

- Policy 15-1 provides guidance for consent decision making for *takes and uses of surface water and groundwater*, specifically seeking to

recognise and provide for the abovementioned provisions of Chapter 6; avoid adverse effects on other lawful activities and takes; and to have regard to the objectives and policies (to the extent relevant) in:

- Chapter 2 (Administration, a chapter which includes objectives and policies on consent conditions, durations and reviews).
  - Chapter 3 (Infrastructure, Energy and Waste).
  - Chapter 7 (Living heritage).
- Policy 15-2 provides guidance for consent decision making for *diversions and drainage*, also specifically seeking to recognise and provide for the abovementioned provisions of Chapter 6 and of Chapter 10 (flood risk hazards); to manage effects on rare, threatened and at-risk habitats and on natural character of water bodies; and avoid adverse effects on other lawful activities and takes.
- Policy 15-3 relates to consent decision making for bores and Policy 15-4 relates to monitoring requirements
- Policy 15-5 relates to consent review and expiry and sets up a schedule of common expiry dates for all water takes (except municipal takes which will be reviewed at the specified dates) and it also establishes a priority order for consideration of water take applications at these times.
- Policy 15-6 relates to the transfer of water permits.

#### 4.8 *Rules for water takes and uses (section 15.2)*

- A permitted activity regime for minor takes and uses of surface and ground water (Rules 15-1 and 15-2). With some stated qualifications, minor takes of surface water are takes not exceeding 30m<sup>3</sup>/day per property, and minor takes of groundwater are takes not exceeding 50m<sup>3</sup>/day per property.
- A controlled activity regime for takes and uses of surface water complying with core allocations (Rule 15-5).

- A non-complying activity regime for takes of surface water not complying with core allocations (Rule 15-6).
- A discretionary activity regime for other takes and uses of surface and groundwater (Rule 15-8).

4.9 *Rules for water diversions and drainage (section 15.3)*

- A permitted activity regime for lawfully established and new drainage and diversions, subject to stated conditions and standards (Rules 15-9 to 15-11).
- A discretionary activity regime for other diversions (Rule 15-12).

**Mighty River Power's key concerns with the Proposed One Plan's water allocation framework**

4.10 Mighty River Power's key concerns regarding the Proposed One Plan's water allocation framework can be summarised as follows:

4.11 Chapter 3 (Infrastructure, Energy and Waste) focuses on infrastructure and renewable energy facilities but largely ignores the associated *resource use* (such as the take and use of water which is the necessary "fuel" for renewable hydro-electricity schemes). This matter is left to Chapter 6 and 15. Mr Richard Peterson has addressed this matter in his previous evidence on Chapter 3, and in his evidence for this water hearing.

4.12 In the absence of adequate objectives and policies in Chapter 3 to give clear direction with regards to *resource use* for renewable energy infrastructure (in recognition of the NZES, s7(j) RMA and the Proposed NPS for Renewable Electricity Generation, all as discussed previously) then these are needed in Chapter 6 – but there are no such provisions.

4.13 There is no clear allocation framework for new takes and uses for hydro-electricity activities.

4.14 Given that the core allocation limits for each water management sub-zone in Schedule B range from just 5% up to about 40% of the specified

minimum flow (with the default core allocation being 10% of MALF), it is clear that *any* hydro-electricity generation proposal would exceed the *core allocations* for the sub-zone concerned (but could well be designed to meet the minimum flow requirements and any effects of the reduction in natural flow variability could be mitigated or offset, and may be acceptable when balanced against the national and regional benefits that would accrue from the proposal). Furthermore, the Plan's provision for *supplementary allocations* are of no assistance as these are not consistently available as they may only be taken at above median flows.

- 4.15 Any new hydro-electricity proposal, therefore, is likely to be a non-complying activity under Rule 15-6. Mighty River Power seeks that takes, uses, dams and diversions for hydro-electricity purposes be provided for as a discretionary activity (which can be done by excluding such takes from the core allocation and minimum flow requirements either by amending Schedule B to state this and/or by amending Rule 15-6(c) so that lawfully established *and new* takes for hydro-electricity generation are discretionary activities under Rule 15-8).
- 4.16 There is a lack of an adequate consent pathway for hydro-electricity generation proposals, not only due to the existing non-complying activity status, but also because of the inadequate explanation of water allocation issues relating to renewable energy generation and the absence of objectives and policies that will allow the national and regional benefits of such generation (related to security of electricity supply) to be balanced against any localised effects (which may be remedied, mitigated or offset). As an example:
- Policy 15.1 (water takes and uses) only requires that *regard be had* to the objectives and policies of Chapter 3 (Infrastructure, Energy and Waste), rather than requiring that the Chapter 3 provisions be *recognised and provided for*;
  - Policy 15.2 (diversions) does not reference Chapter 3 (Infrastructure, Energy and Waste) at all. There is no policy guidance in the Plan to guide diversions for electricity generation, despite the national policy and statutory support given to renewable energy.

4.17 In addition to the above *key* concerns, Mighty River Power's submission also addresses various other matters of concern in the detail of the objectives, policies and rules. I shall discuss these as I now turn to the specific changes sought by Mighty River Power, and progress through Chapters 6 and 15 section by section.

## 5. CHAPTER 6, WATER

5.1 This part of my evidence covers the specific decisions sought by Mighty River Power in its submission and in key further submissions in relation to Chapter 6.

### 6.1 SCOPE AND BACKGROUND (SECTION 6.1.3, WATER QUANTITY)

#### Mighty River Power submission

5.2 Section 3.1.7.1 (page 24) of Mighty River Power's submission on Chapter 6 refers to its general submissions to the Proposed One Plan (Regional Policy Statement and the Regional Plan sections) which, in respect of water allocation, are set out in section 2.4 (pages 8-10) of its submission. I have summarised these submissions in paras 4.10 to 4.16 above.

5.3 In para 4.16 above, I noted Mighty River Power's concern that there is a lack of an adequate consent pathway for hydro-electricity generation proposals. This reflects, amongst other things, the absence of adequate objectives and policies in Chapter 6 relating to renewable energy generation and this, in itself, stems from the inadequate explanation of water allocation issues relating to renewable energy generation in key parts of the plan, such as sections 6.1 (Scope and Background) and 6.2 (Significant Resource Management Issues). Mighty River Power seeks (on page 9 of its submission) *"the addition of a new section to Part 6 of the Plan that provides a policy framework ... for the allocation of water to hydro-electricity."*

5.4 Mighty River Power also made a further submission in support of a submission by the Energy Efficiency and Conservation Authority (EECA) on section 6.1.3.

### Horizons officer report recommendation

- 5.5 The Horizons staff report recommends (page 28) that Mighty River Power's general submission be rejected. Ms Barton considers that Chapter 3 already covers this matter and would, where applicable, be considered in relation to any resource consent application.
- 5.6 However, the Horizons' staff report recommends (page 40) that the EECA submission on section 6.1.3 (and therefore Mighty River Power's further submission) be accepted in part and text is recommended to be added to note the "*potential for more hydroelectricity generation in the Region over the next decade*".

### Comment

- 5.7 At the time of writing, it is not at all clear whether or not Chapter 3 does in fact cover this matter. As I have noted in paras 3.11 and 3.12 of my evidence, it appears that Horizons staff do not intend that Chapter 3 will cover resource use (I consider that it should given that this is an integral part of providing renewable energy infrastructure, consistent with national policy and statutory direction). Notwithstanding the final form and content of Chapter 3, I maintain that the policy framework of Chapter 6 (issues, objectives, policies) still needs to be improved in this regard.
- 5.8 Ms Barton has not had the benefit of being able to consider a specifically worded suggestion for amended wording to section 6.1 (Scope and Background) as Mighty River Power's submission was framed in more general terms. I agree with her suggested amendment as noted in para 4.6 above, but consider that it should be expanded with the addition of the following text at the end of that statement (a change that would be within the scope of Mighty River Power's submission and further submission):

*"The take and use of water for power generation has the potential to create significant benefits, as is recognised in Chapter 3."*

6.2 SIGNIFICANT RESOURCE MANAGEMENT ISSUES  
(ISSUE 6-2, WATER QUANTITY AND ALLOCATION)

Mighty River Power submission

- 5.9 As noted in para 5.3 above, Mighty River Power is concerned at the inadequate explanation of water allocation issues relating to renewable energy generation and seeks (on page 9 of its submission) *“the addition of a new section to Part 6 of the Plan that provides a policy framework ... for the allocation of water to hydro-electricity.”* This includes amendments to the issues section.

Horizons officer report recommendation

- 5.10 The Horizons staff report recommends (page 28) that this submission be rejected. Ms Barton considers that Chapter 3 already covers this matter and would, where applicable, be considered in relation to any resource consent application.

Comment

- 5.11 My response is similar to that provided above in respect of the “scope and background” section. Ms Barton has not had the benefit of being able to consider a specifically worded suggestion for amended wording to Issue 6-2 (Water quantity and allocation) as Mighty River Power’s submission was framed in more general terms. I consider that the first sentence of Issue 6-2 should be amended to read as follows and that this is within the scope of Mighty River Power’s submission:

*“The use of both surface water and groundwater is important to the economic, social and cultural wellbeing of the region. The use of the region’s water can also have national benefits, eg in relation to electricity generation. Our water use has increased dramatically ...”*

OBJECTIVE 6-1, WATER MANAGEMENT VALUES

- 5.12 Objective 6-1 requires that the values set out in Schedule Ba be recognised and provided for. I understand that Mr Peterson will address this objective in his evidence. I will address the matter of values in the

context of Policy 6.1 and the associated Table 6.2 and Schedule Ba (see below).

### *OBJECTIVE 6-3, WATER QUANTITY AND ALLOCATION*

#### Mighty River Power submission

5.13 Objective 6-3 in the Proposed One Plan as notified states:

*“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.*
- (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.*

5.14 Mighty River Power’s submission on this objective refers to its overall position that the Plan’s objective and policy framework needs amending to better provide for the allocation of water to hydro-electricity, being a matter which is regionally and nationally significant (page 9 of submission). Notwithstanding the broad scope of this request, Mighty River Power’s submission also requests a specific change to Objective 6-3(b)(iii) so that groundwater takes that are hydrologically connected do not reduce the amount of water that would otherwise be available for electricity generation (refer page 25 of submission).



- 5.15 Mighty River Power also made further submissions in support of Trustpower Limited and in opposition to several other submitters such as Horticulture NZ and Fonterra.

Horizons officer report recommendation

- 5.16 The Horizons staff report recommends (page 28) that this general submission be rejected. Ms Barton considers that Chapter 3 already covers this matter and would, where applicable, be considered in relation to any resource consent application. Ms Barton also recommends (page 63) that Mighty River Power's specific submission and further submission in respect of Objective 6-3 (and those of other energy companies) be rejected on the grounds that renewable electricity generation should not be given any priority over other abstractions, such as those for irrigation.

Comment

- 5.17 In my opinion, for reasons that I have covered earlier in terms of the national policy and statutory direction and encouragement given to renewable energy generation, I consider that Objective 6-3 is the appropriate place to reflect potential allocations for hydro-electricity more clearly. I suggest the following changes in red (the changes in green are those suggested by Horizons staff):

*"Water quantity is managed to enable people, industry (including renewable energy generators) and agriculture to take and use water to meet their reasonable needs while ~~ensuring that~~ providing for the following:*

*(a) For surface water:*

- (i) Minimum flows and allocation regimes are set for the purpose of maintaining or enhancing the existing life-supporting capacity of rivers waterbodies and providing appropriately for other identified values of ~~rivers as necessary~~ waterbodies.*
- (ii) In times of water shortage, takes are restricted to those that are essential to the health or safety of people, communities or stock for drinking water, 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 adverse effect on the long-term groundwater yield.
- (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 and shall not reduce the amount of water that would otherwise be available for electricity generation
- (iv) ~~Sal~~Seawater intrusion into coastal aquifers, induced by groundwater takes, is avoided.

(c) In all cases, water is used efficiently.

5.18 Furthermore, in clause (a)(i) where Horizons staff have suggested the addition of the word *identified* values, one assumes that they are referring to the values identified in Table 6.2 of Policy 6-1 and in Schedule Ba. For this reason, it is important for these tables and schedules to recognise the potential value of the region's rivers for hydro-electricity generation, just as water supply, industrial abstraction, irrigation and stockwater values (amongst others) are specifically mentioned. Alternatively, Table 6.2 and Schedule Ba could focus just on "in-stream" values and the references to "other" values could be removed. I shall turn to address this point now.

*POLICY 6-1, WATER MANAGEMENT FRAMEWORK AND THE ASSOCIATED TABLE 6.2 AND SCHEDULE Ba*

Mighty River Power submission

5.19 Mr Richard Peterson is addressing Mighty River Power's submissions in respect of water quality and the beds of lakes and rivers, while my evidence focuses on water quantity and allocation issues. The matter of water management values spans both of our evidence topics so we elected that Mr Peterson will, for the most part, address the topic of water management values (Objective 6-1, Policy 6-1 and Table 6.2, and Schedule Ba) however I will comment on any changes that may be appropriate *from a water allocation perspective*.

5.20 I wish to comment on Schedule Ba (previously Schedule D) and, more particularly, Part Ba2 "Surface Water Management Values". As I have noted in para 4.13 above, Mighty River Power is concerned that there is

no clear allocation or policy framework for takes and uses of water for hydro-electricity activities and nowhere is this more apparent than in Table 6.2 (Policy 6.1) and in Schedule Ba, neither of which refer to any potential value of water bodies for the generation of hydro-electricity.

- 5.21 Mighty River Power seeks (on page 9 of its submission) *“the addition of a new section to Part 6 of the Plan that provides a policy framework ... for the allocation of water to hydro-electricity.”* While its general submission was broad in scope (and perhaps less than specific in terms of proposed wording sought), it also made a specific submission with regards to the Policy’s requirement to “recognise and provide for” the full suite of *other* values listed in Schedule Ba, and it sought flexibility to effectively recognise that not all values may be able to be provided for in all places at all times. Mr Peterson addresses this submission point in his evidence. Finally, Mighty River Power made a further submission supporting a submission by Trustpower Limited seeking recognition of electricity generation values in Table 6.2.

#### Horizons officer report recommendation

- 5.22 The Horizons staff report recommends (pages 76 and 260) that these submissions be rejected.

#### Comment

- 5.23 I consider that Mighty River Power has a valid point here. Clearly some rivers have the potential to be used for hydro-electricity generation, and adverse effects may well be able to be avoided, remedied, mitigated or offset (particularly for those schemes which may be of a “run-of-river” or “short diversion” nature whereby the water is retained in, or discharged back into, the same river). To the extent that there may be some adverse effects on values, these may be more than counter-balanced by regional and national benefits. All rivers have potential value for hydro-electricity generation but clearly some will be better than others (where good head and flow is available and other constraints can be overcome) and site specific assessment is needed before those more suitable rivers and reaches can be identified.

5.24 I consider that potential hydro-electricity generation values should be recognised in both Table 6.2 and in Schedule Ba, just as water supply, industrial abstraction, irrigation and stockwater values (amongst others) have been. Ms Barton appears concerned at promoting hydro-electricity generation ahead of other sectors yet the current provisions arguably relegate hydro-electricity generation values *behind* other sector values. In my opinion, the neatest way of doing this in Schedule Ba (without introducing another column in the “zone wide values” section and then ticking every watercourse) would be to include a statement at the start of Schedule Ba along the lines of:

*“In addition to the values identified in Schedule Ba, water management zones and sub-zones throughout the Region (and particularly those with good head and flow available) may have value for hydro-electricity generation. Further site-specific assessment will be needed in order to establish the locations where such values are the greatest and the degree to which they may be able to be realised having regards to all other values of the waterbodies concerned.”*

The alternative, as I alluded to in para 5.18 above, is to go in the other direction and amend Table 6.2 and Schedule Ba to remove references to values other than the in-stream ones. So, rather than adding hydro-electricity generation as a potential value, this table and schedule would be amended to remove the “other” out-of stream values (ie. water supply, irrigation, stockwater). As currently drafted, it is somewhat ambiguous as to whether those listed out-of-stream values/uses *currently exist* for any particular water management sub-zone, or whether the river section (sub-zone) concerned simply has the *potential* to be used in that way, the latter being a fairly universal statement applying to all water bodies.

#### *POLICY 6-12, REASONABLE AND JUSTIFIABLE NEED FOR WATER*

##### Mighty River Power submission

5.25 Policy 6-12 applies to both surface water and groundwater and sets out guidelines for reasonable water use for irrigation, industrial and public water supplies. Mighty River Power’s submission opposes this policy in part but only to the extent that it provides no direction for future takes or uses for hydro-electricity. No alternative wording was suggested in the submission. The submission is supportive of Policy 6-12 in terms of the

guidance provided in terms of reasonable water use for irrigation, industrial and public water supplies, and seeks this be retained.

#### Horizons officer report recommendation

- 5.26 The Horizons staff report notes the support aspects (page 107) and recommends that the submission be accepted and the policy be retained.

#### Comment

- 5.27 Although the Horizons staff report does not acknowledge the opposing aspects of Mighty River Power's submission in respect of this policy, I find myself agreeing with their conclusion that this policy be retained and, implicitly, that this is *not* the appropriate policy to amend to provide direction for future takes or uses for hydro-electricity. I consider that such direction should be provided elsewhere, such as in Objective 6-3 and in Policy 6-1, Table 6.2 and Schedule Ba, as noted above, and also in later policies as noted below.

#### *POLICY 6-14, CONSIDERATION OF ALTERNATIVE WATER SOURCES*

#### Mighty River Power submission

- 5.28 Mighty River Power's submission opposes this policy in part in that it is all well and good to promote consideration of alternative water sources and methods (such as harvesting and storage) but the policy should also recognise that this may not be reasonable or practicable when it involves the reallocation of water from one consent holder to another. For example, where a consent is held for hydro-electricity generation and the full (or a substantial amount of) variable flow goes through turbines to generate electricity, then upstream water harvesting may well not be appropriate. Mighty River Power seeks that the words "*where it is reasonable to do so and where existing consent holders will not be adversely affected*" be added to the end of the policy.

Horizons officer report recommendation

- 5.29 The Horizons staff report (page 114) recommends that the submission be rejected but there is no discussion on the matter.

Comment

- 5.30 I consider that Mighty River Power's request is quite reasonable. In principle I agree that the provision of water storage infrastructure makes sense in many cases to reduce the need for/amount of abstractions during low flow periods (and I note that this is one of the matters included in the Government's *New Start for Fresh Water* strategy). However, as pointed out by Mighty River Power, an important consideration will be other potentially affected parties so I support the proposed amendment requested by Mighty River Power.

*POLICY 6-15, OVERALL APPROACH FOR SURFACE WATER ALLOCATION*

Mighty River Power submission

- 5.31 Mighty River Power's submission opposes this policy in part due to the lack of a clear allocation framework for hydro-electricity generation. It seeks broad but unspecified relief, and also the inclusion of existing takes for hydro-electricity generation within the permitted water allocation regime.

Horizons officer report recommendation

- 5.32 The Horizons staff report recommends that the submission be rejected.

Comment

- 5.33 I have previously expressed the view that policy direction regarding the allocation of water to hydro-electricity, and recognition that the region's water bodies may have hydro-electricity generation values, should be included in Objective 6-3 and in Policy 6-1, Table 6.2 and Schedule Ba. This being the case, it is appropriate in section 6.4.3 (the section which sets out specific policies relating to water quantity and allocation) for

these themes to be followed through. While Mighty River Power's submission does not specify actual suggested wording changes, I would commend the following (which is within the scope of Mighty River Power's overall submission) for consideration:

Insert new clause (e) in Policy 6-15 [with subsequent renumbering] which states:

*Takes, uses, dams and diversions for hydro-electricity purposes will be subject to site-specific assessment and will be considered on their merits (and as such are excluded from core allocation and minimum flow requirements).*

5.34 The above wording is consistent with the points made earlier in paras. 4.14 and 4.15 of my evidence, where I noted that core allocation limits for each water management sub-zone in Schedule B range from just 5% up to about 40% of the specified minimum flow (with the default core allocation being 10% of MALF). It is clear that *any* hydro-electricity generation proposal would exceed the core allocations for the sub-zone concerned and would be consigned to “non-complying activity” status under later Rules 15-6 and 15-8. This would be the case even if the proposal were designed to meet minimum flow requirements and any effects of the reduction in natural flow variability could be mitigated or offset, and may be acceptable when balanced against the national and regional benefits that would accrue from the proposal. I also noted earlier that the Plan's provisions for supplementary allocations are of no assistance as these are not consistently available because they may only be taken at above median flows or in other limited circumstances.

5.35 As noted above, there is an opportunity in Policy 6-15 to establish a policy that takes, uses, dams and diversions for hydro-electricity purposes will be subject to site-specific assessment and will be considered on their merits (and as such, are excluded from core allocation and minimum flow requirements). I suggest later in relation to Rule 15-6(c) that both lawfully established *and new* takes for hydro-electricity generation should be discretionary activities under Rule 15-8.

## POLICY 6-16, CORE WATER ALLOCATION AND MINIMUM FLOWS

### Mighty River Power submission

- 5.36 This policy as notified states:
- (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.*
- 5.37 Mighty River Power supports the proposed allocation framework that accepts existing hydro generation activities as being part of the existing environment and the baseline from which future allocation decisions will be made. This is entirely appropriate. However, Mighty River Power's submission opposed this policy, mainly out of uncertainty as to how it will be applied and a desire for more clarity in this regard. It also sought broader relief in terms of its general submission and the need to provide a clear allocation framework for new hydro-electricity generation.
- 5.38 Mighty River Power also made further submissions in opposition to submissions of (amongst others) Federated Farmers, Fonterra and Landcorp Farming Ltd whose submissions oppose the policy generally and also more particularly that minimum flows and core allocations will be assessed after existing water takes for hydro-electricity have been taken.

### Horizons officer report recommendation

- 5.39 The Horizons staff report (page 119) recommends that the submission be accepted in terms of providing clarity regarding the existing hydro takes. The report recommends that (b) be amended to read:
- 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 Zone Whau\_3c.~~*
- 5.40 However, the Horizons report (page 119) recommends that other aspects of the submission be rejected and states that *“the policy should only apply*



*to existing hydro electricity takes not new ones as the framework cannot allocate unknown volumes of water in advance”.*

Comment

- 5.41 I support the above wording proposed in the Horizons report. I understand that the minimum flows and core allocations specified in the plan cannot allow for new hydro electricity takes as it isn't possible to allocate unknown volumes in advance of any hydro scheme being investigated and proposed. I consider that the practical way to address the implications of any new hydro scheme is to provide a framework of objectives, policies and rules that enables new proposals to be considered on their merits through a comprehensive resource consent process, with the expectation that any such application will be accompanied by a *concurrent* plan change process to enable the resetting of minimum flows and core allocations for the water management sub-zone(s) concerned should the merits of the proposal and the outcome of the public processes involved be such that the Council is of a mind to make such a decision.
- 5.42 This allows flexibility for any new hydro-electricity takes and diversions to be considered on their merits. If the Hearing Panel agrees that the above provides an appropriate response to this issue of dealing with new hydro-electricity proposals without fundamentally changing the Plan's underlying water allocation approach, then I consider that clause (b) of this policy should be amended to read:

*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. Any new hydro electricity generation proposals will be assessed by way of a resource consent application process and, where it is proposed to amend any minimum flows and/or core allocations on the basis of detailed investigations undertaken, a concurrent plan change process is expected so that the merits of both the application and any plan change may be considered together.*

*POLICY 6-17, APPROACH TO SETTING MINIMUM FLOWS AND CORE ALLOCATIONS*

Mighty River Power submission

- 5.43 Mighty River Power seeks the addition of a sentence to the end of 6-17(b) stating that:

*“It is recognised that more detailed studies may show that minimum flows lower than those specified in Schedule B may be appropriate in particular situations”.*

Horizons officer report recommendation

- 5.44 The Horizons report (page 122) recommends that the submission be accepted in part, and notes a willingness to discuss further, although no changes are recommended at this stage.

Comment

- 5.45 Clause (a) already recognises that default provisions relating to MALF can be replaced where good hydrological information exists. However, it is not clear that this can apply after the Plan preparation process is complete (ie. as a result of detailed studies associated with resource consent processes).
- 5.46 In para 3.20 I noted that Dr John Hayes for the Regional Council (in his para 41) expresses a view that region-wide water assessments of the kind needed for plan preparation are necessarily precautionary. He accepts that detailed assessments for specific watercourses (such as would be expected as part of an Assessment of Environmental Effects (AEE) for any significant water take, use, dam or diversion proposal) will yield more site-specific information and enable more focused evaluations as to the relative merits of a proposal.
- 5.47 For this reason, I consider that the following, slightly different, sentence should be added as a new clause (c) rather than being added to the end of clause (b) :

*It is recognised that where good hydrological information subsequently becomes available (such as through a resource consent process), the*

*detailed studies may show that minimum flows lower than those specified in Schedule B may be appropriate in particular situations.*

#### *POLICY 6-18, SUPPLEMENTARY WATER ALLOCATION*

##### Mighty River Power submission

- 5.48 Mighty River Power's submission opposes this policy in part, mainly to note that it is not appropriate to rely on supplementary allocations (which apply only above median flows or in other specified circumstances) for essential services such as electricity generation. It seeks to exclude hydro-electricity generation from the concept of supplementary water allocation.

##### Horizons officer report recommendation

- 5.49 The Horizons report (page 123) recommends that the submission be rejected but there is no discussion of the issue.

##### Comment

- 5.50 In my opinion, it is not appropriate to rely on intermittent supplementary allocations for hydro-electricity generation. Rather, the applicant for such a proposal would have to apply for a resource consent as a non-complying activity to exceed core allocation limits (under current provisions) or as a discretionary activity (if the Hearing Panel accepts my recommendation made earlier in paras 5.33 to 5.35 in respect of Policy 6-15). Changes could potentially be made to Policy 6-18 to explicitly exclude hydro-electricity takes from the concept of supplementary allocations (as sought by Mighty River Power). I consider it would be more appropriate for the Plan to deal with existing hydro electricity generation activities and new ones in the same way. Once a new hydro scheme is consented and established, the plan framework could then be consistently applied to the new hydro development in the same way as for existing hydro-electricity generation activities.

*POLICY 6-19, APPORTIONING, RESTRICTING AND SUSPENDING  
TAKES IN TIMES OF LOW FLOW*

Mighty River Power submission

- 5.51 As notified, Policy 6-19 seeks that, during times of low flow, takes from rivers shall be managed in the manner specified for (a) permitted takes; (b) essential takes; and (c) non-essential takes.
- 5.52 Mighty River Power's submission opposes this policy because it is considered that resource consents for the take and use of water for the generation of electricity are essential for people and communities' social and economic well being as well as for their health and safety. Additionally, Mighty River Power consider that a reliable electricity supply is also essential to the facilities identified in part (vi) and in some cases water will not be able to be conveyed to these activities if resource consents for electricity supply are restricted.
- 5.53 Mighty River Power's submission seeks that the policy is amended so that *"consents for the take and use of water for hydro electricity are permitted to continue regardless of river flow and irrespective of whether the water taken or used is part of the 'core allocation' or not"*

Horizons officer report recommendation

- 5.54 The Horizons report (page 128) recommends that the submission be rejected. Ms Barton makes the comment *"hydro electricity generation is an industry and would and should be subject to the same restrictions as other takes"*.

Comment

- 5.55 With respect I disagree with Ms Barton on this matter. Electricity is clearly an essential service upon which the community is totally reliant and I have expanded upon this theme earlier in my evidence. I consider that a new clause (b)(v) should be added as follows so as to clearly specify takes for electricity generation as essential takes:

(v) *Takes for hydro electricity generation undertaken in accordance with the conditions of resource consents.*

#### *POLICY 6-23, GROUNDWATER MANAGEMENT ZONES*

##### Mighty River Power submission

- 5.56 Mighty River Power's submission opposes this policy because it is not clear how the annual allocable volumes have been set and also because changes are needed to ensure that takes from groundwater do not reduce the amount of water available to instream uses and users.

##### Horizons officer report recommendation

- 5.57 The Horizons report (page 134) recommends that the submission be accepted in part and, in this regard, recommends that changes be made to Policy 6-25 rather than to Policy 6-23.

##### Comment

- 5.58 I agree with the approach taken by Ms Barton on this matter.

#### *POLICY 6-25, EFFECTS OF GROUNDWATER TAKES ON SURFACE WATER BODIES*

##### Mighty River Power submission

- 5.59 Mighty River Power's submission opposes this policy in part and seeks the inclusion of an appropriate scientific method to measure connectivity between groundwater and surface water and that thresholds be added to determine when groundwater takes will be considered as surface water takes.

##### Horizons officer report recommendation

- 5.60 The Horizons report (page 137) recommends that the submission be accepted and recommends substantial changes to Policy 6-25, including the addition of Table 6.2a regarding surface water depletion.

### Comment

- 5.61 I consider that the changes proposed by Ms Barton are certainly a good step in the right direction. The issue in respect of hydro-electricity generation schemes is that where a dam is constructed it captures all surface and groundwater runoff from a catchment so, irrespective of how long the groundwater flow takes to get to the storage reservoir, it will be depleted if there is an upstream groundwater take. For this reason, Table 6.2a does not go far enough to protect impacts on any hydro storage dam operation as it effectively states that if the groundwater flow takes more than 100 days to impact the storage volume, then the “surface water deletion effect” will be classified as “low or negligible”. The issue for the downstream hydro-electricity scheme is that a groundwater abstraction from the catchment may well take more than 100 days to manifest itself. In fact, as I understand the evidence of Mr John Male it could take years to manifest itself. While I defer to the expertise of Mr Male in this regard, one option could be to amend the row of Table 6.2a that describes the “high” classification of surface water deletion effect, so as to add the words “... or, in those catchments containing downstream hydro-electricity generation storage reservoirs, greater than or equal to 20% of the groundwater pumping rate after 730 days (two years)”. While this still may not be a sufficiently long period to cover groundwater flow in larger catchments, it is a considerable improvement on the currently proposed 100 days and would more adequately reflect surface water depletion issues in respect of downstream hydro schemes.

### *CHAPTER 6 CONCLUSION*

- 5.62 I have addressed all of Mighty River Power’s submissions in relation to Chapter 6 insofar as they relate to water quantity and allocation. I now propose to turn to the policies and rules in Chapter 15 (regional plan section).

## 6. CHAPTER 15, TAKES, USES AND DIVERSIONS OF WATER

6.1 This part of my evidence covers the specific decisions sought by Mighty River Power in its submission and in key further submissions in relation to Chapter 15.

### *POLICY 15-1, CONSENT DECISION MAKING FOR TAKES AND USES OF SURFACE WATER AND GROUNDWATER*

#### Mighty River Power submission

6.2 Mighty River Power's submission opposes this policy in part as clause (c) only requires people making decisions to *have regard to* the objectives and policies in Chapter 3. Mighty River Power considers that this wording is inconsistent with the wording of the objectives and policies in Chapter 3. Additionally, Mighty River Power considers that decision makers should be given guidance to take into account the benefits derived from the use and development of resources. As this policy is important at the time of consent review or expiry, Mighty River Power also considers that it is essential that reference be made to the significance of the investment made by applicants in existing plant and/or infrastructure.

6.3 Mighty River Power's submission seeks that clause (c) be amended to state that the objectives and policies in Chapter 3 will be *given effect to*. It also seeks the addition of three new points, namely that the Regional Council will:

- *Seek to provide for the benefits to people and communities from the use and development of natural and physical [resources] at a local, regional and national level where this is appropriate.*
- *Seek to maintain the value invested by applicants at time of consent review or expiry.*
- *Enable reuse or recycling of water.*

#### Horizons officer report recommendation

6.4 The Horizons report (page 257) recommends that the submission be rejected. Regarding the addition of the above three points, the Officer

notes that as a result of the proposed reorganisation of the Policy framework (to be included in Supplementary Report) some of the concerns raised may be met. For example Policy 6-31 which deals with Essential and Beneficial Activities (currently in relation to rivers and lake beds only) would then be contained within the regional plan section of the Plan.

### Comment

- 6.5 As the supplementary report is to follow at a later date (cf. current time of writing) I shall have to withhold judgement as to whether this will address Mighty River Power's concerns or not. However, I can suggest an easy, tidy solution at this stage to address Mighty River Power's concerns. I can accept that the three suggested points above may not be necessary *if* clause (a) is amended to read:

*When making decisions on resource consent applications, and setting consent conditions, for takes and uses of surface water and groundwater the Regional Council will:*

- (a) recognise and provide for the provisions of Chapters 2, 3, 4 and 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*

~~*(c) have regard to the objectives and policies in Chapters 2, 3 and 7 to the extent that they are relevant to the activity*~~

- 6.6 The above changes will ensure that the provisions of Chapter 3, and the other specified chapters, are "recognised and provided for" as opposed to the lesser requirement of just being "regarded".

### *POLICY 15-2, CONSENT DECISION MAKING FOR DIVERSIONS AND DRAINAGE*

#### Mighty River Power submission

- 6.7 Mighty River Power's submission opposes this policy in part as, unlike Policy 15-1, there is no cross-reference at all in Policy 15-2 to the provisions in Chapter 3 (Infrastructure), and yet the objectives and policies in Chapter 3 will be very relevant for a diversion scheme for hydro-electricity. Accordingly, Mighty River Power seeks a new clause stating that the Regional Council will "give effect to the objectives and



*policies of Chapter 3 to the extent that they are relevant to the activity.”*

Mighty River Power is also concerned that there is no policy guidance to take into account the benefits provided by the use and development of resources and so it seeks an additional point. It seeks a new clause stating that the Regional Council will recognise *“the benefits to people and communities from the use and development of natural and physical resources at a local, regional and national level.”*

- 6.8 Mighty River Power supports clause (e) which states that the Regional Council will *“seek to avoid any adverse effects on any other lawful activity, including water takes”*.

#### Horizons officer report recommendation

- 6.9 The Horizons report (page 259) recommends that the submission be accepted in part. However, the officer’s track change version does not recommend any of the requested changes. The Officer notes that as a result of the proposed reorganisation of the Policy framework (to be included in Supplementary Report) some of the concerns raised may be met.

#### Comment

- 6.10 I consider that a cross-reference to Chapter 3 is very appropriate given that such a cross-reference is included in Policy 15-1. It is just as relevant for diversions (which is the subject of Policy 15-2) as it is for water takes (which are the subject of Policy 15-1) and I see no reason for taking a different approach to the two policies. Furthermore, I believe that the cross-reference should be expressed in terms of “recognise and provide for”, for the same reasons noted above in relation to Policy 15-1.
- 6.11 I consider also that the resource use issues raised by Mighty River Power are also valid and important matters. I noted in para 4.12 above that in the absence of adequate objectives and policies in Chapter 3 to give clear direction with regards to *resource use* for renewable energy infrastructure (in recognition of the NZES, s7(j) RMA and Proposed NPS for Renewable Energy) then these are needed in Chapter 6 and previous submission

points have suggested amendments to achieve this. Given that, I consider that instead of the additional clauses sought by Mighty River Power (noted in para 6.7 above), a simple cross-reference in Policy 15-2 to Chapter 3 is all that is needed so long as:

- the existing cross-reference to Chapter 6 is retained; and
- changes are made to the “scope and background” and “significant resource management issues” sections of Chapter 6 as outlined in paras. 5.8 and 5.11 above.

Accordingly, I suggest that Policy 15-2(a) be amended to read:

*When making decisions on resource consent<sup>^</sup> applications, and setting consent conditions<sup>^</sup>, for the diversion of water<sup>^</sup>, including diversions associated with drainage, the Regional Council<sup>^</sup> will:*

- (a) recognise and provide for the provisions of Chapter 6 and Chapter 3

## *POLICY 15-5, CONSENT REVIEW AND EXPIRY*

### Mighty River Power submission

6.12 As notified, Policy 15-5 states that resource consents to take water shall generally be reviewed, and shall generally expire in accordance with the dates set out in Table 11.1. Additionally, the policy provides that 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 allocable limits; and
- (b) allows takes in the following order of priority:
  - Permitted minor takes under Rule 15-1 and fire-fighting takes;
  - Domestic use components of consents for public water supplies expiring or being reviewed (this being a suggested addition by Horizons officers);
  - Current consents due for review;

- Current consents that are expiring and have been reapplied for;
- New resource consents for “essential takes” (which are specified to include takes for domestic and stock drinking water, hospitals and, as recommended by the Horizons officer report, also marae, educational, corrections and defence facilities)
- All other applications based on date of lodgement.

6.13 Mighty River Power’s submission opposes this policy. Mighty River Power is strongly of the view that consents for hydro-electricity generation (which involves a very high level of investment in infrastructure and provides an essential community service) should not be subject to common consent review or expiry dates. Mighty River Power’s submission also opposes the assumption in clause (a) that it is more efficient to allocate water amongst a wide range of users as, in some cases, it may be more efficient and may better serve the purpose of the RMA to allocate water amongst a small range of users. Finally, Mighty River Power opposes the priority order for allocation in clause (b) and, more specifically, the lack of recognition of the importance and essential nature of electricity generation.

Horizons officer report recommendation

6.14 The Horizons track change document does recommend that clause (a) be amended to remove the reference to “as many resource users as possible”. However, in relation to the remainder of Mighty River Power’s submission on this policy, the Horizons report (page 264) recommends that the submission be rejected. By way of justification for this position, Ms Barton notes that hydro-electricity generation is not listed as an essential take in Policy 6-19 and therefore should not get excluded from common review/expiry dates or any priority treatment.

Comment

6.15 I agree with the recommended amendment to clause (a). However, as I noted also in para. 5.55 above in relation to Policy 6-19, I respectfully

disagree with Ms Barton on the matter of whether electricity is an essential service. I consider that electricity clearly is an essential service upon which the community is totally reliant and I have expanded upon this theme earlier in my evidence.

6.16 By way of comparison, I note that Variation 6 of the Waikato Regional Plan also establishes a regime of common expiry dates for water takes<sup>4</sup> but it specifically excludes consents for municipal / domestic supply and takes “*for the primary purpose of, or directly associated with, electricity generation*”. This exclusion is valid for all the reasons specified in Mighty River Power’s submission (and summarised in para 6.13 above) and I consider that a similar exclusion is appropriate in the Proposed One Plan.

6.17 Even if the Hearing Panel accepts the above request and excludes hydro consents from the common review/expiry date regime, it is still appropriate for clause (b) to be amended to recognise that applications for *new* takes of water for electricity generation warrant a degree of priority over other new applications, but only to the same extent as is being given to other essential takes. Many of the facilities listed (and the occupants of these) need electricity to function properly just as much as they need water. Accordingly I suggest that Policy 15-5(b)(iv) be amended to read:

*“... essential takes, being takes providing for the reasonable need for domestic or stock drinking water use, hospitals and freezing works, other facilities providing medical treatment, marae, schools or other education facilities, defence facilities or, correction facilities or electricity generation”*

#### *RULE 15-1, MINOR TAKES AND USES OF SURFACE WATER*

##### Mighty River Power submission

6.18 Mighty River Power supports this rule which provides for a reasonable allocation of water for domestic supply and stock drinking water.

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<sup>4</sup> refer to Policy 11 in revised chapter 3.3 of the Waikato Regional Plan

Horizons officer report recommendation

- 6.19 The Horizons report (page 270) recommends that the submission be accepted and the rule retained in very similar form to that notified.

Comment

- 6.20 I do not wish to comment on this any further other than to endorse the staff recommendation in this regard.

*RULE 15-2, MINOR TAKES AND USES OF GROUNDWATER*

Mighty River Power submission

- 6.21 This rule provides for minor takes and uses of groundwater. Mighty River Power opposes this rule on the basis that the potential for groundwater takes to reduce the water available to surface water users is not recognised. Accordingly, Mighty River Power seeks the addition of a further standard (term) that states that a groundwater take will not reduce the amount of water available to existing consented takes or uses.

Horizons officer report recommendation

- 6.22 The Horizons report (page 276) recommends that the submission be rejected because the rule already contains standards requiring setbacks of groundwater takes from surface water features, in order to address this issue.

Comment

- 6.23 I note that the Horizons officer report does recommend extensive changes to Policy 6-25 in Chapter 6 in order to address the issue of interconnectedness of groundwater and surface water bodies by way of a new Table 6.2a. In para 5.61 above, I expressed conditional support for those changes while suggesting a further change to the new Table 6.2a to better reflect the issue in relation to those catchments containing downstream hydro-electricity schemes. This issue is clearly summarised in para 48 of Mr John Male's evidence where he explains that:

*“for the most part groundwater eventually joins a river and provides a significant portion of the river flow. So while a bore may not be close to a stream or have a direct effect on the stream in the short term, it will reduce the overall catchment water balance through the abstraction. Any water abstracted above a storage dam will therefore impact on the total runoff that reaches the dam and on the generation capacity of power stations associated with that storage.”*

- 6.24 Policy 6-25 provides guidance for the assessment of applications for groundwater takes near surface water bodies. However, permitted groundwater takes under Rule 15-2 do not require consents and so will escape assessment under Policy 6-25. One option that may address this issue would be for condition (c) of Rule 15-2 to be amended to specify a significantly greater setback (say, one kilometres) from water bodies where the proposed groundwater abstraction is in the same catchment as, and upstream of, a hydro-electricity scheme. This condition would simply trigger a resource consent for groundwater abstraction proposals within the specified setback, thereby enabling consideration of the surface water depletion effects and consequent effects on the hydro scheme (including time lag effects). Accordingly, the suggestion is to amend condition (c) of Rule 15-2 to add at the end:

*“... Further, the take shall not be located within 1000 metres of any river or lake that is upstream of any hydro-electricity scheme”.*

***RULE 15-5, TAKES AND USES OF SURFACE WATER COMPLYING WITH CORE ALLOCATIONS***

**Mighty River Power submission**

- 6.25 This rule provides for controlled activity status for takes and uses of water which comply with core allocations subject to several stated conditions. Mighty River Power’s opposes this rule due to its concern that new “controlled activity” takes or uses should not reduce the amount of water available to existing downstream takes or uses. This is because Council should retain the ability to decline an application should a proposed new take adversely affect an existing take. Mighty River Power requests a new condition (f) as follows:

*“The take shall not reduce the amount of water available to existing lawfully established takes and uses.”*

### Horizons officer report recommendation

- 6.26 The Horizons report (page 280) recommends that the submission be rejected noting that, in the next column of the rule table, control is already reserved over “(f) effects on other water takes”.

### Comment

- 6.27 Whether or not a water take meets the conditions, standards and terms listed in the “conditions/ standards/ terms” column of the rule table is what determines whether the water take has controlled activity status or not. If it does, then it effectively has to be approved even though the Council reserves control over, amongst other things, (a) the volume, rate and timing of the take and (f) effects on other water takes. A condition of a consent cannot negate the practical application of the consent, so any conditions on a controlled activity consent will still allow the take to proceed. In the context of a downstream hydro scheme this would equate to lost water and a corresponding loss of power generation. For this reason, I consider that Mighty River Power’s suggested additional condition is appropriate.

### *RULE 15-6, TAKES OF SURFACE WATER NOT COMPLYING WITH CORE ALLOCATIONS*

### Mighty River Power submission

- 6.28 This rule provides for non-complying activity status for takes and uses of water which do not comply with core allocations. There are some specified exemptions, including “(c) *lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8)*”. Mighty River Power opposes this rule in part, but supports clause (c). Mighty River Power also made a further submission opposing the submission of Fonterra which had objected to the “special treatment” for hydro-electricity generation and had requested deletion of clause (c).
- 6.29 The aspect that Mighty River Power opposes is the lack of a reasonable “consent pathway” for new hydro-electricity proposals to be considered on their merits (as these will inevitably not meet core allocations and so,

unless the provisions are amended, would be consigned “non-complying” activity status in all cases). Mighty River Power seeks more favourable activity status for new hydro-electricity proposals to allow a more reasonable consent pathway for proposals to be considered on their merits.

#### Horizons officer report recommendation

- 6.30 The Horizons report (page 283) recommends that the submission be rejected.

#### Comment

- 6.31 I have addressed this issue earlier in my evidence, in paras 5.34 and 5.35. Given the directions of the NZES, s7(j) of the RMA and the Proposed NPS for Renewable Electricity Generation, I consider that virtually “automatic” non-complying activity status for new hydro-electricity proposals is not appropriate at all. I consider that discretionary activity status would be appropriate. For this reason, I suggest amending Rule 15-6 to include a new clause (d) as follows:

*“New takes for hydroelectricity generation (these are discretionary activities under Rule 15-8”*

#### *RULE 15-9, LAWFULLY ESTABLISHED DIVERSIONS*

#### Mighty River Power submission

- 6.32 Mighty River Power supports permitted activity status for lawfully established diversions but opposes condition (a) which requires the diversion to be to the same water management sub-zone. Mighty River Power considers this unnecessary given that condition (d) requires compliance with conditions of consent for existing diversions. For any consented diversion of water to *different* water management sub-zone, condition (a) seems to defeat the purpose of having the permitted activity rule in the first place.



### Horizons officer report recommendation

- 6.33 The Horizons report (page 287) recommends that the submission be rejected, stating that condition (a) is needed to deal with potential adverse effects and so should be retained.

### Comment

- 6.34 I consider that Mighty River Power request that condition (a) be deleted is reasonable in respect of hydro diversions which are subject to resource consents. I do not understand why the existing condition (a) is specified as *not* applying to land drainage diversions but all other diversions are required to be to the same water management sub-zone in order to have permitted activity status. If there is some reason of which I am unaware, then an alternative to deletion of condition (a) in its entirety would be to retain it but exempt consented hydro-electricity diversions. Condition (d) provides a safeguard as it requires compliance with all conditions of consent if the diversion is to have/retain permitted activity status.

## **7. CONCLUSIONS**

- 7.1 In conclusion, my evidence has (in section 3) discussed the national policy and statutory context relating to water allocation generally and also, more specifically, relating to water allocation for renewable energy generation. It has (in section 4) outlined Mighty River Power's key concerns and then (in sections 5 and 6) provided commentary on each of the provisions in Chapter 6 and 15 respectively that are the subject of Mighty River Power's submissions. As far as possible, I have suggested specific wording solutions to address the issue concerned and, where appropriate, to meet Mighty River Power's submission points in a manner that is consistent with the purpose and principles of the RMA.

Andrew Collins  
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