

IN THE MATTER of the Resource Management
Act 1991

AND

IN THE MATTER of an application by Meridian
Energy Limited for resource
consents for the Mokihinui Hydro
Project

**STATEMENT OF EVIDENCE OF ROBERT JAMES GREENAWAY ON
BEHALF OF MERIDIAN ENERGY LIMITED**

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1. **QUALIFICATIONS AND EXPERIENCE**

- 1.1 My full name is Robert James Greenaway. I am in practice as a consultant leisure and open space planner. I operate a private Nelson-based consultancy called Rob Greenaway & Associates and I am a Director of the Pacific-based leisure planning consortium, the Global Leisure Group Ltd.
- 1.2 I graduated from Lincoln University in 1987 with a three-year Diploma in Parks and Recreation Management with Distinction, and then completed 18 months of postgraduate study. Between 1990 and 1995 I worked with an international tourism and recreation development consultancy - Tourism Resource Consultants - on a range of large and small development and advisory projects, including ecotourism development planning in Samoa and for potential World Heritage Sites in the Solomon Islands for the Ministry of Foreign Affairs and Trade, event management, and domestic reserve, tourism and recreation management planning.
- 1.3 Between 1995 and 1997 I worked for Boffa Miskell Ltd, focusing on recreation planning for local authorities and tourism development planning for private agencies. Since 1997 I have worked independently. The majority of my work is for local and central government, private companies, and environmental and community agencies.
- 1.4 I have been a member of New Zealand's leading professional leisure management association - the New Zealand Recreation Association (NZRA) - since 1990 and was a member of the Association's National Executive from 2000 to 2006. In 2004 I was awarded the Ian Galloway Memorial Cup by the NZRA, 'to recognise excellence and outstanding personal contribution to the wider parks industry.' I am on the Association's inaugural Board of Accreditation to assess candidates for the status of Accredited Recreation Professional (ARPro) and Accredited Recreation Practitioner (ARPra), and hold the status of an Accredited Recreation Professional. I am also a member of the New Zealand Association for Impact Assessment and the Australia and New Zealand Association for Leisure Studies (ANZALS).
- 1.5 Over the past several years, as an example, I have worked as either lead, co-lead or sole consultant on recreation, park and sport

development strategies, assessment of effects and research programmes for Meridian Energy, Contact Energy, TrustPower, King Country Energy, the Department of Conservation, Bay of Plenty Energy, Christchurch City Council, SPARC (Sport and Recreation New Zealand), the Royal Forest and Bird Protection Society, Summit Road Society, Landco, Fiordland Link Experience, Thames-Coromandel District Council, Hauraki District Council, Central Plains Water Trust, Christchurch Estuary Association, Port Levy Coastal and Marine Protection Society, Far North District Council, Infinity Investment Group, Darby Partners, Auckland Regional Council, Blueskin Projects Ltd, the Canterbury West Coast Sports Trust, Environment Canterbury, Selwyn District Council and the Dunedin City Council.

- 1.6 I have lectured at Lincoln University for several years on recreation planning, project design and professional development at under- and post-graduate level. In 1995 I wrote Massey University's original extramural third year outdoor recreation management course programme. I have had over 100 articles on recreation and tourism published in popular, professional and academic publications in Australasia and Asia and have managed several major multisport events.
- 1.7 I have read the Code of Conduct for Expert Witnesses (Rule 330A, High Court Rules and Environment Court Practice Note) and I agree to comply with it. I have complied with it in the preparation of this statement of evidence.
- 1.8 I have been involved in the following work in relation to Meridian Energy Limited's (Meridian's) Mokihinui Hydro Project (MHP):
- a. The preparation of the original recreation assessment of effects for the MHP consent application ("the report");
 - b. Engagement with, and review of, the *Lyell-Mokihinui Heritage Trail Market Evaluation and Development Options Study* (Booth 2008); and
 - c. Peer review of the Cawthron Institute report *Effects of Dams on Trout Fisheries in New Zealand* (Holmes & Hayes 2008).
- and I have prepared my statement of evidence in reliance on this work.

- 1.9 I have reviewed:

- a. The reports and statements of evidence of other experts giving evidence on behalf of Meridian relevant to my area of expertise, including:
 - i. *Mr Marty Bonnett,*
 - ii. *Ms Cathryn Barr,*
 - iii. *Mr Peter Rough,*
 - iv. *Mr Andrew Craig,*
 - v. *Mr Ian Jowett,*
 - vi. *Mr John Hayes.*
- b. The Department of Conservation *2007-2017 draft West Coast Tai Poutini Conservation Management Strategy,*
- c. The Department of Conservation internal *Review of Proposed Mokihinui River Hydro Power Scheme* by Ian Wightwick.
- d. Relevant submissions of others, namely:
 - i. University of Canterbury Canoe Club,
 - ii. Joshua Marcotte and Kristen Marken (Eco Rafting Adventures),
 - iii. Council of Outdoor Recreation Associations of NZ Inc,
 - iv. Fish and Game NZ – West Coast Region,
 - v. NZ Rafting Association,
 - vi. NZ Recreational Canoeing Association,
 - vii. Jet Boating NZ West Coast Branch,
 - viii. West Coast Whitebaiters Association Inc,
 - ix. Federated Mountain Clubs of NZ,
 - x. New Zealand Rafting Association,
 - xi. Buller Tramping Club,
 - xii. Don Allardice (Ultimate Descents),
 - xiii. Hutt Valley Canoe Club,
 - xiv. Nelson Canoe Club,

- xv. New Zealand Federation of Freshwater Anglers,
- xvi. Waikato Kayak Club,
- xvii. Whitewater Canoe Club Inc, and
- xviii. University of Canterbury Canoe Club.
- xix.

2. **SCOPE OF EVIDENCE**

2.1 I have been asked by Meridian to prepare evidence in relation to the potential effects of the MHP on recreational values. This includes:

- a. Assessing the scale and significance of the current recreational activities in the proposal area (whitebaiting, trout fishing, kayaking, rafting, jet boating, hunting, tramping, walking, other water- and land-based activities);
- b. Assessing how dam construction and inundation, and the construction of the transmission line, may affect the recreational values identified;
- c. Evaluating the scale of any effects within a district, regional and national context;
- d. Identifying how to avoid, remedy or mitigate potential adverse effects; and
- e. Identifying potential benefits of the proposal.

2.2 My assessment is based on a review of popular and technical literature, a review of on-line Web references, stakeholder interviews and a review of parallel technical assessments. I have also completed several site visits, including rafting the Mokihinui River and walking the Mokihinui River Track, Charming Creek and other local walkways, and visiting the Denniston and Stockton plateaus from where parts of the transmission corridor will be visible.

3. **EXECUTIVE SUMMARY**

3.1 The proposal will result in the loss of the whitewater rafting and kayaking opportunities in the gorge below The Forks. While both activities will

remain possible on the North Branch, the increased difficulty in egress will likely reduce the take-up of this option.

- 3.2 The backcountry fishery experience in the North and South Branches will remain but with some modifications. Improved ease of access will increase the encounter rates between anglers and other recreation visitors, particularly in The Forks area. Much of the North Branch and South Branch will continue to have difficult foot access.
- 3.3 Operating the scheme as run-of-river during the whitebait season will mean there are no ramping rate effects on whitebaiting.
- 3.4 With the MHP in place the setting will most likely feature an overall increase in recreational activity in the catchment – a result of: track redevelopment, flatwater recreation opportunities, water-based access to the headwaters, and greater awareness of the setting in general.
- 3.5 While the whitewater recreation options in the gorge will be lost, the net recreation effect (the total level of general recreational activity) will most likely be positive.

4. **THE PROPOSAL**

- 4.1 I confirm my evidence is based on the project proposal as described in the Assessment of Environmental Effects, brief details of which are described in Appendix 1.

5. **EXISTING ENVIRONMENT**

- 5.1 The main recreational uses of the Mokihinui River below the Mokihinui Forks are whitebaiting (below the proposed dam site), whitewater kayaking and rafting. There is also some angling, mountain biking, hunting and tramping in this reach. All activities require a high level of personal commitment and advance planning when they occur above the proposed dam site. This is partly the result of the poor quality of sections of the access track (Mokihinui River Track) from the Welcome Creek road end. This track is defined by the Department of Conservation (DOC) as a 'route', and although it is generally of an even grade, it has several major and many minor slips, reducing its accessibility and

confining the pedestrian access to the more hardy and skilled outdoors person. I estimate that 70 to 80% of the track is in good condition, while the remainder is in a poor or very poor state. Helicopter access is required for kayaking and rafting, and is commonly used for angling.

- 5.2 Two commercial rafting operators have been identified, and their patronage of the Mokihinui River has varied over the past decade – currently approximately a dozen trips are run from October through to May. Angling guides also access the area, but almost all angling occurs on the North and South Branches of the River (above the Mokihinui Forks).
- 5.3 The Rough and Tumble Lodge and the Seddonville Holiday Park have a strong relationship with the Mokihinui River setting. Both rely on the ability of visitors to experience a range of outdoor activities within the proposal area, currently including angling, whitebaiting, rafting, walking and kayaking. The Seddonville Holiday Park caters for a small number of independent rafters and kayakers (20 or so groups per year).
- 5.4 The transmission corridor passes east of the Charming Creek Walkway, and the upper slopes of the Stockton and Denniston Mines. Denniston features four wheel drive and mountain bike access whereas access at Stockton is controlled. Denniston also features several walkways, the most relevant of which is the Coalbrookdale.
- 5.5 The Department of Conservation (DOC) *West Coast Tai Poutini Conservancy draft Conservation Management Strategy (CMS) 2007-2017* proposes to develop the lower Mokihinui River Track to the Rough and Tumble Creek confluence as a front-country recreation setting, with a mountain biking track to The Forks. The upper catchment, above The Forks, would be retained as a 'backcountry-remote' recreation setting. The CMS suggests that additional controls over helicopter access to the upper catchment may be required.
- 5.6 A DOC proposal to develop the Kawatiri Heritage Park, and to change the statutory status of the land administered by the Department in the Mokihinui catchment, and elsewhere, from Stewardship Area to Conservation Park, does not include any specific developments for recreation.

Significance of recreation and tourism values

- 5.7 There is no nationally agreed approach to defining the significance, at a national scale, of a recreation resource. Various approaches have been attempted over the past 30 years, but none has retained currency. Most recently, the Ministry for the Environment undertook its Water Programme of Action and in 2004 published several documents related to identifying 'Potential Water Bodies of National Significance', including recreation and tourism (MfE 2004a, 2004b). The MfE relied on several benchmarks, such as 10,000 angler days in a waterbody reported by the national angler survey (Unwin & Image 2003) and practitioner reports of whitebaiting importance. There are many problems with the MfE assessment and I do not regard it as a robust review for recreation or tourism values. As such, we are lacking a nationally agreed or consistent methodology for assessing recreation and tourism significance.
- 5.8 When referring to 'significance' in this context I am referring to the relative value of a recreation resource to specific activities. The accepted scale of significance stretches from 'local' to 'international' (MfE 1998). For a resource to have international significance it would need to be recognised as a key international tourism destination or have some internationally agreed classification applied – such as a World Heritage Site. A resource of local value would have limited recreation value and/or be commonplace. It is more difficult to differentiate between resources which are regionally and nationally significant. Often reference is made to the origin of visitors to a resource, but this can be misleading. For example, kayakers and anglers tend to be quite mobile recreation participants, and as a result almost all rivers and lakes will be used by visitors from outside their immediate region. If this inferred that all such resources were nationally significant, there would be few which were not. Almost all rivers and lakes have some special feature, or combination of features, which could be used to describe each as unique. Again, this is not immediately helpful.
- 5.9 Grindel and Guest (1986), in their assessment of nationally significant waterbodies, considered rarity of features as well as the potential to undertake a variety of recreational activities in the one setting. Flexibility and speciality were both important in that assessment, and this approach remains relevant. However, it still does not allow us to easily categorise waterbodies which have a mix of values and particularly those which are not readily accessible. Low use does not necessarily infer low value.

- 5.10 My preferred approach is to consider a mix of indicators, such as level and variety of use, rarity, as well as the origin of users, but to also consider the more broad relative position of the resource in common recreation discourse. The latter would, for example, differentiate the Karamea and Buller Rivers from the Mokihinui in relation to kayaking.
- 5.11 In relation to the Mokihinui River, no activity occurring between the proposed dam and The Forks was rated as nationally significant by the literature reviewed for my study (see references). The fishery above The Forks, in the upper catchment, may have national significance for trout angling. Angling, tramping and hunting in the proposed inundation area are no more than of regional significance. The River above Seddonville is not used for jet-boating. Whitewater kayaking and rafting are the most popular activities within the inundation area, but are not of national significance. Whitewater rivers are considered by kayakers to be part of a national network and each generally offers some feature that is unusual. For example, the North Branch includes an uncommon granite geology and the main stem offers a good grade 3 'advanced learners' remote experience.
- 5.12 Rafting on the Mokihinui River is undertaken by two commercial operators, but is one of many options offered by each company. One helicopter charter operation reports that it undertakes up to 30% of its activity in the Mokihinui catchment.
- 5.13 Whitebaiting on the Mokihinui River is referred to by the Ministry for the Environment to indicate that the River is potentially of national significance for at least this activity – although the Ministry's summary of *Potential waterbodies of national significance* (MfE 2004b) confers this status on the River in general. The whitebaiting activity occurs in the lower reaches of the Mokihinui River, below the State Highway 67 bridge, well below the proposed dam.
- 5.14 On balance, the Mokihinui River between the Mokihinui Forks and the Welcome Creek road end is likely to be of no more than regional significance for recreation. The North and South Branches – both outside the impoundment area – are significant remote angling destinations and of importance to tourism and to domestic anglers. These areas may be of national significance for remote fishing. In addition, the lower reaches, below the State Highway 67 bridge, also outside the impoundment area, are likely to be nationally significant for whitebaiting.

- 5.15 The Charming Creek Walkways, and the Coalbrookdale walk at Denniston are regionally significant day-walking settings. The southern end of the Charming Creek walkway, which includes part of the Ngakawau Gorge, has the potential to become a more significant recreation setting over time. The entire walkway is a 'NZ Walkway' as defined by the NZ Conservation Authority – this does not, however, infer 'national' status for recreation.

6. ACTUAL AND POTENTIAL EFFECTS

Whitewater activities

- 6.1 The most obvious effect of the MHP will be the replacement of the whitewater opportunity in the Mokihinui River between The Forks and the proposed dam with a lacustrine setting. Whitewater kayaking and rafting will be confined to the North Branch of the River (the South Branch is not a favoured whitewater destination and there is no record of use). Flatwater kayaking in the impoundment will be possible, using sea kayaks, Canadian canoes or flatwater racing kayaks. However, as different boats will be required for the whitewater and flatwater settings, the 'source to sea' opportunity (from the North or South Branch to the coast) for whitewater kayaking will be removed. Similarly, as any rafting experience on the North Branch would require a transfer from the head of the impoundment to the get-out (such as a powered boat or helicopter transfer), rafting on the North Branch would be less frequently carried out. The effect on the proposal on both these activities would be significant and would not be possible to avoid or to mitigate on-site.
- 6.2 Rafting on the Mokihinui River represents only one of the many whitewater options offered by incumbent commercial operators in the Buller area, and while the net effect on these businesses would not be great, each will have to review its operations.
- 6.3 The greatest direct potential effect on tourism relates to recreational helicopter services, specific to Karamea Heli Charters. The company reports that up to 30% of its business is in the catchment and relates to rafting, kayak, fishing and hunting relocations. Some of these activities will continue, considering easy boat transport will exist only up to The Forks, although I recommend that controls are placed on motorised boat

activity on the impoundment to limit the potential for adverse effects. Angling access to the likes of the upper North Branch, Hemphill and Johnson Rivers will still require a solid walk or a helicopter trip. Some kayaking in the North Branch will also continue. However, this company will need to re-evaluate its activities in the catchment. Some new activity options – such as heli-mountain biking from The Forks – may provide alternative revenue options.

Pedestrian and cycle access: Mokihinui

- 6.4 This section covers all activities that are dependent on the track network. This includes walking, tramping, mountain biking, hunting and fishing – although the latter is more often dependent on helicopter access to the River above the proposed impoundment.
- 6.5 Sections of the Mokihinui Pack Track will be inundated by the scheme. If the track was not realigned the effect of the proposal on people who currently use the track for access to recreational areas would be significant. This needs to be tempered by the fact that the track is in poor condition in parts. This means that while the impact on the people who do currently use the track would be significant if they could no longer do so, the actual number of people currently using the track is relatively low.
- 6.6 DOC's draft 2007-2017 CMS indicates a preference by the Department to manage the Mokihinui catchment largely as a 'backcountry-remote' setting. This management setting suggests little facility development, besides access along the Mokihinui River Track and The Forks hut. There will be a need to review the opportunities to enhance the recreation and tourism setting within the catchment while maintaining a backcountry recreation experience, and the remote angling setting in the North and South Branches.
- 6.7 It is possible to remedy this effect by appropriate track redevelopment in consultation with the Department of Conservation and other interested parties. While the realignment of the current access may affect the heritage associations of the Mokihinui Track, the recreation opportunity will be improved if the track standard and maintenance regime is upgraded.

Pedestrian and cycle access: Charming Creek, Denniston

- 6.8 The proposal will have no direct effect on the access to the walking tracks at Denniston and Charming Creek. Effects will be limited to changes in the landscape setting where the transmission lines are visible from the tracks. In his evidence Andrew Craig indicates visual effects of the proposed transmission line will be not more than minor.

Jet boating and power boating

- 6.9 The River above Seddonville is rarely – if ever – used for jet boating, although interviewees suggest it might be possible at high flows, and there is always someone willing to ‘give it a go’.
- 6.10 Jet boating and power boating would be possible, and indeed attractive activities, on the impoundment. There are no local lakes (Brunner and Rotoiti being the closest alternatives) and so demand for this activity could be high, with some potential for consequent conflicts with other, non-motorised uses of the lake. Some restrictions – such as speed, noise and timing – may need to be placed on motor boats to secure a predictable setting for other uses, and to offer the boating opportunity. The Councils would be key players in developing a management plan and/or relevant bylaws for these activities, along with the Department of Conservation.
- 6.11 Should boating become popular below the dam, signage indicating the effects of ramping rates and flow variability may be required.

Local tourism

- 6.12 The Seddonville Holiday Park has a strong relationship with the Mokihinui River setting. The effects of the proposal relate to the modification of the local recreation setting, which represents an important component of the visitor experience. The retention of the operations’ existing and targeted market would represent an avoidance of an effect on the businesses. That is, the operations would remain based in a setting which attracted guests and offered them an interesting range of local recreation opportunities. For example, if effects on whitewater kayaking and rafting mean a reduction in visitors to the Park development of flatwater kayaking, mountain biking, angling, walking and tramping options, and some form of boating activity on the proposed

lake, has the potential to sustain the growth of the services and diversify the recreation options.

- 6.13 The Seddonville Holiday Park services many whitebaiters, and as the evidence of Mr Bonnett indicates the effect on the whitebait fishery will be minor or less than minor, or any effects can be appropriately mitigated. This activity would therefore not change.

Trout angling

- 6.14 The level of trout angling in the main stem of the River, where the impoundment is proposed, is low compared with the River's North and South Branches.
- 6.15 The effect of the proposal on the remote fishery in the North and South Branches will relate to changes to access to the area. The impoundment will allow flatwater kayak and managed boat access to these waters, and the upgraded track will encourage greater foot and cycle access, resulting in higher encounter rates between anglers. While the remote setting characteristics will remain, the social setting will be modified, and this always presents a conundrum. On the one hand it is good to encourage greater recreational access to the outdoors, and it can represent a reduction in pressure elsewhere, but on the other hand, the existing user group will notice more competition for space. This may have an adverse effect on the more specialised trout guide seeking undisturbed waters, with domestic anglers gaining more resource at a loss to international visitors.
- 6.16 The most important effects on the fishery relate to the ecology of the River for trout. Dr Hayes, in his evidence, notes the potential for a decline in the number of trophy fish in the upper catchment, if they are currently supported by a sea-run population. Any negative change to a feature which contributes to an area's reputation as a fishery is likely to have some adverse effects, particularly to tourism. However, the setting is still likely to feature an increase in angling activity as a result of easier access.
- 6.17 Mr Jowett indicates that proposed minimum flows below the dam will have no effects on trout habitat, and flow variability outside the whitebait season will not have any significant effect on native fish or trout habitat since the fish can move as flows change. Fish stranding is therefore unlikely.

- 6.18 Ramping rate effects may be noticed by anglers, and anyone swimming below the dam, outside the whitebait season. As the River is a single channel and angling activity is low in this stretch, there will be no public safety concerns (anglers and other river users will not be able to be stranded on islands). Some signage indicating the potential for rises of up to 1 m close to the dam will be required at key river access points. The effect of ramping rates will be less noticeable below SH67 where the tidal influence dominates.

Whitebaiting

- 6.19 The effects of the proposal on whitebaiting will largely be dependent on the findings of the aquatic ecology and hydrology assessments. The effect of the scheme on whitebaiting is described by Mr Bonnett and I defer to his assessment.
- 6.20 There is no effect on recreational access to the River below the proposed dam. During the whitebait season the scheme will operate as 'run of river', with the aim of matching inflows with outflows of the lake. There will be no ramping rate effects on the ability to undertake the activity.

Summary

- 6.21 The proposal will have significant effects on the regionally important rafting and kayaking opportunities in the Mokihinui catchment. There are no measures available to directly mitigate adverse effects on these activities. However, so that public recreational enjoyment of the setting is maintained or enhanced, the potential exists to maximise positive effects on other activities, including flatwater kayaking and canoeing, managed jet and power boating, walking, tramping, mountain biking and angling. The uptake of such activities has been the case in all hydro lakes and reservoirs that I am aware of, and where the potential exists – consider Lakes Dunstan, Matahina, Benmore, Rotorangi and the Manorburn Reservoir.
- 6.22 Effects on the angling opportunity in the upper catchment will be limited to aquatic ecology considerations, unless there is significantly increased access to the North and South Branches of the River as a result of other recreation enhancements. There is likely to be at least a moderate increase in patronage and this may modify the remoteness qualities of

the experience via increased encounter rates, although the setting itself will remain 'backcountry-remote'.

- 6.23 The landscape assessment of Mr Craig indicates minor to less than minor visual effects of the transmission line.
- 6.24 In summary, the study area has the potential to develop as a destination to ensure that the public recreational and the tourism benefits offered by the Mokihinui River catchment, and the walking options west of the proposed transmission corridor, are enhanced overall. Opportunities that may be created include:
- a. Enhanced pedestrian and mountain biking access along the Mokihinui River Track (which is also proposed by the draft CMS);
 - b. A potentially popular flatwater kayaking and canoeing opportunity on the proposed impoundment, with associated commercial support (canoe and kayak hire, guiding);
 - c. A water taxi service on the impoundment to below The Forks, potentially obviating some helicopter activity in the backcountry-remote setting and enabling whitewater rafting and kayaking on the North Branch;
 - d. Heritage asset developments via the relocation and interpretation of currently inaccessible and poorly-known mining artefacts, as per the recommendations in the evidence of Ms Barr;
 - e. A lake angling opportunity with ready pedestrian and boat access;
 - f. Catchment-wide development for recreation – as per the Mokihinui Lyell Backcountry Trust and Booth (2008) recreation potential assessment.
- 6.25 Should the MHP not proceed, and the intentions of the draft CMS be achieved, the Mokihinui catchment setting will be largely a 'backcountry-remote' setting, with helicopter access the norm for angling above The Forks, and reliable access for mountain bikers and trampers to the upper catchment. The current whitewater options will remain. There would be a minor increase in recreational and tourism activity as a result of improved access and ongoing marketing by commercial rafting and accommodation providers, but there will be no change to the diversity of recreation options available. The Department of Conservation will consider the management of helicopter activity in the upper catchment

and some restrictions may result, as per the recommendations of the draft CMS. I note that the CMS is still in draft form and any implementation may be some time off.

- 6.26 With the MHP and associated mitigation in place, the setting will feature the removal of a complete whitewater setting from the North Branch to Seddonville. Boat transport from The Forks to the dam will enable a whitewater experience in the North Branch, but this option will be less frequently taken than it is currently because of the increased difficulty in egress. Helicopter access to the upper catchment will remain an important service, but there will be additional competition with passenger boat options, and helicopter activity in the upper catchment may reduce. A passenger boat service, or independent boating, will appeal to domestic, and more adventurous international visitors, who are happy to walk to angling sites in the North and South Branches, or who may also wish to hunt along the north side of the proposed lake. 'High end' anglers – predominantly international visitors – will retain their preference for direct air delivery to specific angling sites, and increased encounter rates and the potential for loss of some trophy fish may reduce the appeal. The lake will be a popular setting for independent and commercially guided canoeists and flatwater kayakers, and local gear hireage would be a commercial option. Conflicts (noise, speed, wakes) may arise between boaters and other lake users, and some controls will be necessary. Track enhancement would proceed in the same manner as recommended by the draft CMS, albeit on a realigned route. In addition, the relocation and interpretation of heritage assets, as recommended by Ms Barr would result in a more readily accessible heritage experience.
- 6.27 The setting under the status quo would be largely 'backcountry-remote'. Notably, this setting currently features a high level of helicopter access into the upper catchment. With the scheme in place, aerial motorised access would be partly replaced by motorised boat access – with potentially some form of restriction to maintain the setting's core qualities. The setting could therefore remain 'backcountry-remote'.
- 6.28 Signage below the dam will be required to indicate the potential for relatively rapid changes in flow volume (speed and depth) to advise anglers and swimmers.

Conclusion

- 6.29 The proposal will result in significant effects on the whitewater activities of kayaking and rafting. Rafting will not be possible within the study area with the scheme in place, and although whitewater kayaking will be possible above the impoundment, the loss of easy egress will significantly reduce the use of the River above The Forks for this activity.
- 6.30 Angling in the upper catchment will be affected by a likely increase in patronage and encounter rates between anglers. Also, as reported by Mr Hayes, there is the potential for a change from the current number of large fish to a greater number of moderate sized fish. This, and the mere presence of a control structure on the River, will no doubt change the perception of anglers about the wilderness qualities of the North and South Branches.
- 6.31 Although the setting will clearly change – from one featuring a largely unmodified river setting to one featuring a controlled lake, albeit with ‘very high levels of naturalness’ (as stated in Mr Rough’s evidence) – the introduction of the lake setting and the retention of a remote upper-catchment angling experience will balance the adverse effects of the scheme in terms of the retention of a recreation and tourism market for the area. A broad set of recreation opportunities will remain in place. The Tasman and West Coast regions will retain a diversity of whitewater kayaking and rafting options.

7. ISSUES RAISED BY SUBMISSIONS

- 7.1 Rather than address each submission individually I have extracted the key issues of relevance and comment on each. These are:

Significance of the River to kayaking

- 7.2 While the NZ Recreational Canoeing Association does not specifically state that the Mokihinui River is of national or greater significance in itself, the Association states in its submission (page 4) that the River is visited by kayakers and canoeists from outside the region, and that it is an element of the West Coast whitewater scene which in aggregate is of national and international significance ‘in the whitewater community’.

- 7.3 I contend that all whitewater rivers in New Zealand are visited by kayakers and canoeists from outside their immediate region – that is the nature of the sport. Whitewater rivers all offer some feature which is unique, and all offer a sense of discovery and adventure, even after many visits. In my original report I state that although the Mokihinui is of regional significance, “whitewater rivers are, however, considered by kayakers to be part of a national network and each generally offers some feature that is unusual. For example, the North Branch includes an uncommon granite geology and the main stem offers a good grade 3 ‘advanced learners’ remote experience.” This characteristic of whitewater rivers means that almost all can be described as nationally significant, which confuses and belittles the assessment.
- 7.4 My preference is to confer national status on those rivers which have a strong whitewater association within the specialised whitewater community as well as the more broad recreation population. In the South Island, the Buller, Karamea, Shotover, Kawarau, Rangitata, Waimakariri and the Clarence Rivers fall into this category. While the Mokihinui River is a quality kayaking destination, I contend that it does not have both the specialised and popular status to raise its significance to national. I agree that the Mokihinui River is an element of a nationally important network of whitewater opportunities, for which New Zealand is well-known.
- 7.5 The Buller and southern Tasman districts, particularly, represent a nationally important area for kayaking and contain a large number of important sections of kayaking water, including some which are recognised to be nationally outstanding. The Mokihinui Gorge, while not recognised as being outstanding in itself, is still highly regarded.
- 7.6 I note that several submissions from kayak groups refer to Graham Charles’ guidebook *New Zealand Whitewater 125 great kayaking runs* (Charles 2006). In the past I have been occasionally criticised for referring to such popular guides as a means of inferring the significance of a recreation resource. Indeed, in Charles’ 2006 edition he states, “*An unfortunate argument used in environment hearings recently is ‘if [a river] isn’t in the guidebook it isn’t used’. This is nonsensical and illogical. This guidebook does not, nor cannot, claim to be the sole measure of recreational quality or value of a particular run or river.*” The corollary is

that Charles, or any similar author, is not implying a list of nationally significant recreation options by reason of their inclusion in a guidebook.

- 7.7 I agree with Charles' assertion that non-inclusion in a guidebook does not mean that a river (or any other recreation resource) is not used. Rather, that if there is no public discourse about a recreation resource in books which purport to recommend a set of preferred recreation options, then it is probably of less significance than one which features widely.
- 7.8 In the case of the Mokihinui there is some discourse about the River in the two most comprehensive whitewater guides – Egarr's more comprehensive *New Zealand's South Island Rivers – A guide for canoeists, kayakers and rafters* (Egarr 1995) with 332 South Island river sections, and Charles' guidebook. Egarr appears more enthusiastic than Charles about the Mokihinui and lists it as one of 61 'best river trips' in the South Island, and one of 20 of the 'best whitewater trips' in the South Island. However, I retain my contention that for the Mokihinui to have the same national status as the Buller, Karamea, Shotover, Rangitata and the Waimakariri Rivers, it would need a greater level of public awareness.

Specific and net effects

- 7.9 Most of the submissions relating to whitewater kayaking refer to a lack of direct mitigation for the activity, stating that the creation of a flatwater setting is not mitigation. I agree. My statement is that the effect on whitewater kayaking is significant. However, when I refer to mitigation I refer to the 'net recreation effect' considering a transfer of some recreation opportunities from one user group to another. When, for example, Graham Wilson of the Whitewater Canoe Club notes in his submission that many of his club's members also tramp, mountain bike and kayak on flatwater, and so may take up some of the new recreation options in the study area, he is referring to this 'net recreation effect'. That is, while there is a loss to one user group, there may be gains to others, and the net recreation potential of the setting may be retained.
- 7.10 I make this statement to ensure that the hearing committee recognises the difference between the assessments I have made. I note that there is no direct mitigation possible for whitewater activities in the study area, but that there is the potential to balance the total recreation potential, and indeed increase the level of recreational use of the setting.

Significance of the River to rafting

- 7.11 As I discuss in my report, the Mokihinui River is not an important rafting destination in itself – rather it supplements the likes of the Karamea when that river is not able to be run. This is evidenced by its relatively low level of use, and dominant use by one company – Eco Rafting Adventures, who has only recently increased its marketing focus on the River. The ‘official website’ of the New Zealand Rafting Association (NZRA) does not identify the Mokihinui River as a rafting destination in its on-line national river guide (See: <http://www.nz-rafting.co.nz/>) – although it identifies three companies, including Eco Rafting Adventures, as operating on the Karamea River, and four operators on the Hokitika River, also including Eco Rafting Adventures. In total, 12 rafting rivers are identified by the NZRA on the West Coast.
- 7.12 This is not to say that the Mokihinui River is not a good rafting river. Rather, it is not an important element of the general commercial rafting scene and has only occasional rafting use – notwithstanding the potential for Eco Rafting Adventures to develop more business on the River over time. My assessment of it as regionally significant reflects this assessment. I also contend that the level of rafting interest in the River, in a relative sense to other West Coast rivers, reflects the scale of significance of the River to kayaking.

Fishery values above The Forks

- 7.13 The Fish and Game New Zealand West Coast Region submission identifies that there is insufficient detail in my original AEE describing the specific values of the wilderness fishery in the North and South Branches of the River. Fish and Game ask whether the values hinge on: the size of the fish; the number of the fish; or the general backcountry experience.
- 7.14 I have completed a number of additional angler interviews subsequent to the report, to assist the Cawthron Institute in their review of effects on the trout fishery in the River’s headwaters. I can confirm from those interviews that all three values are evident – fish size and number, and the landscape and backcountry values of the setting. As the angling season progresses it is evident that fish become more wary of anglers and greater skill and luck is required to catch them. There is also variability from day to day in some sections as to the presence of fish, and guides must know the area well to satisfy clients. However, the fishery appears to remain a good destination for guides throughout the

season, and the quality of the backcountry setting is a constant against which any variation in fishing success can be moderated.

Tramping track

- 7.15 The DOC internal *Review of Proposed Mokihinui River Hydro Power Scheme* by Ian Wightwick notes agreement in general with the report, but indicates the need for greater assessment of the values of the existing Mokihinui River Track, particularly with regard to heritage. I agree with Mr Wightwick's assessment of the track, in reference to its consistent grade (where the track has not slipped) and appealing heritage features – particularly where the track has been benched into the rock face, with many precipitous drops to the river below.
- 7.16 My recommendation in the report – and Meridian's original contention – is that the track must be reinstated above the line of inundation. It would be appropriate to replicate, where possible, the form of the original track and to retain the easy grade. The local geography means that a consistent grade will be generally unavoidable, bar an early climb to reach the elevation of the reservoir. Timber bridging around some bluffs may be preferable to benching in solid rock, and so the final track may have some different features to the original. Repair work to such sites as Suicide Bluff and several other slips may also require such solutions under the status quo. In summary, while the recreation opportunity of tramping up the valley will be retained – and the area in general is likely to become a busier recreation setting – there will be a loss of opportunity to experience some of the existing heritage features of the track. The heritage issues are addressed in more detail by Ms Barr.
- 7.17 Mr Wightwick queries the recommended standard for the track. This is addressed in a separate study commissioned by Meridian and carried out for the Lyell-Mokihinui Heritage Trail Working Party by Dr Kay Booth, titled *Lyell-Mokihinui Heritage Trail Market Evaluation and Development Options Study* (Booth 2008), which I peer reviewed. This study reviewed the development potential of a track and hut network between Seddonville and Lyell, and recommended that the Mokihinui Gorge section be of 'walking track' standard, as per the Standards New Zealand standard for tracks and outdoor structures (SNZ 2004).
- 7.18 Such a track is designed for day visitors and is quite accessible, being defined by Standards NZ as:

Tracks from a few minutes to a full day return. Relatively easy day walks. Tracks of a high standard that enable use by relatively inexperienced visitors with a low level of backcountry skill. Low level of risk with all but the smallest watercourses bridged or culverted and a reasonable track surface.

- 7.19 Standards NZ defines a 'historic tramping track' thus:

"Historic tramping tracks include old railways, tramways, roads, trails used by Maori, water-race tracks, graded horse tracks and other tracks that are of either high historic heritage value and/or actively managed historic tracks. The heritage value of such tracks must be taken into account in track upgrading and maintenance. The profile (e.g. width, cuts, fills, drains, culverts, stonework and cobbles) and alignment (route, grade and curvature) of these tracks may require a different maintenance regime and different repair solutions. In general any deviation from the original track alignment and grade is to be avoided."

- 7.20 Where the track is not inundated, use of the original alignment should be the standard.

Construction

- 7.21 Several submitters raise the issue of the proposed three year period of pedestrian access closure to the Mokihinui Gorge during the construction period, as sought by the application. I would recommend that this closure period be managed to permit continued use of as much as the area as possible provided safety issues can be addressed. It is likely that, should the proposal go ahead, there will be an increase in kayaking and rafting interest in the River, and use should be facilitated while the whitewater setting remains.

Recreation access

- 7.22 The Council of Outdoor Recreation Associations of New Zealand (CORANZ) makes several comments about recreation access to the river valley. CORANZ notes that the river valley includes an area of public road which will be inundated. This road does not currently provide any access to the valley, and if the Mokihinui River Track lies on the legal road, this is by coincidence and not by design. The road is not a recreation asset, nor could it be considering the geography of the area. Public access is ensured via the conservation status of the surrounding land and the River itself.
- 7.23 CORANZ also makes requests for several recreation options which already form part of the application – boat access to the lake and walking

and cycle access to The Forks, for example. However, CORANZ erroneously states that motor boats can access the valley via the River at present, and future access should be guaranteed as a result. Any motorised boat access to the valley as it is now would require a consistently high flow and a very brave skipper. I am not aware of any use of the River above Welcome Creek by motorised boats.

8. SECTION 42A REPORT

8.1 Mr Stephen Espiner provides a useful critique of my analysis of the potential effects of the proposal and there are many areas of agreement. However, there are several areas where we have differences of opinion or where clarification on my part is required.

Wilderness

8.2 I caution against the use of the term 'wilderness' in its application to the study area, which Mr Espiner uses, although often in reference to statements by submitters. I have also done this in my reporting. Wilderness, as a recreation setting, has a specific definition in the Conservation Act 1987 and is applied in Conservation Management Strategies to refer to such areas. The Mokihinui is not 'wilderness', but is a 'backcountry-remote' setting as defined by the 2007-2017 draft West Coast Tai Poutini CMS.

8.3 By comparison, the Heaphy Track, with 4,470 visitors in 2006/07 (Booth 2008) is also a backcountry-remote zone in the West Coast CMS. The recreation opportunity spectrum scale applied in the West Coast CMS is, from most developed to least:

- Intense interest sites
- Frontcountry sites
- Backcountry – remote zones
- Remote zones
- Wilderness areas

8.4 The backcountry – remote zone is in the centre of this scale.

8.5 I do not consider these definitions to have very fine scales, and the coarseness of the definitions reflect the adaptability of recreational

visitors, outside wilderness and remote zones. In wilderness areas I would expect relatively low tolerance for changes in encounter rates between recreational visitors. The specific intention of a wilderness area is to avoid interactions with people and infrastructure as much as possible. If the backcountry-remote zone featured similar and significant levels of sensitivity to encounter rates between recreational visitors, a prudent manager would place the Heaphy Track in a different category to the Mokihinui. This is not done in the West Coast CMS, and for good reason. The levels of sensitivity are not that fine.

- 8.6 I make this statement with particular regard to a national survey of recreation displacement that I completed for the Department of Conservation and which was published in the peer reviewed journal, *Annals of Leisure Research* (Greenaway et al 2007). This showed that the primary determinants of change in recreation participation were factors of lifestyle: work, age, injury, location, family status. The number of people visiting a location only became a determining factor in the results when respondents were presented that option in a closed question format – when they were asked to select issues from a predetermined list (12.2% of respondents). When asked in four open-ended questions about factors which had caused change in participation, external social issues were very low on the list (a maximum of 1.8%).
- 8.7 In the interview-based recreation surveys that I have completed in the past decade (such as the Hurunui, Waitaki and Rangitaiki Rivers, the Port Hills, Sumner Beach, Avon-Heathcote Estuary, Spencerville and Brighton Beach) the key determinants of levels of recreation conflict have been based on recreation behaviour, rather than crowding *per se*. When crowding increases, interactions between individuals are more likely to be neutral than positive, but satisfaction levels remain generally static. The number of negative interactions between individuals does not change unless there is a specific problem with behaviour or direct conflict between incompatible activities.
- 8.8 For these reasons, my contention is that there is less sensitivity – in terms of changes to satisfaction levels and participation – to small changes in crowding than anecdotal and strategic responses in surveys give the impression. Visitors rationalise the situation and adopt coping strategies which enable them to continue to enjoy favoured activities and

locations over time and as recreation settings change (Greenaway et al 2007 provides a review of relevant literature on these phenomena).

- 8.9 That is not to say that settings can change markedly without effects on satisfaction. However, a change in encounter rates would need to be reasonably large in a backcountry setting to result in a marked decline in the quality of experience and to cause a shift, for example, from a backcountry-remote setting to a frontcountry one.
- 8.10 In the CMS, the 'backcountry-remote' setting definition appears to be the dominant recreation setting in the West Coast.
- 8.11 Mr Espiner estimates a change in visitor numbers to the study area as a result of the proposal from 200 – 400 pre-scheme, to 1500 to 2000 post scheme (section 3.3.4, excluding whitebaiters). This number, which I consider to be a fair estimate, means the setting would have fewer than half the number of visitors as the Heaphy Track does currently, which remains a backcountry-remote zone.
- 8.12 If the use of the area is confined to six months of the year, a pre-scheme load of 400 visits would equate to an average of just over two people in the catchment on any one day for half the year (and vacant the rest). A post-scheme load of 2000 would mean an average of eleven people. Use would actually be concentrated at specific times – weekends, holidays, the roar – but the relativity would remain. In addition, post-scheme, most of the additional visits would likely be based around the new lake, and only a portion would venture into the North and South Branches. These areas would retain, more closely, their current encounter rate. I consider this change of encounter rate to be no more than minor, although internationally guided anglers will more likely be taken to areas further away from The Forks than they are currently. The study area will largely remain backcountry-remote in the West Coast CMS, if motorised boat activity is managed, which I recommend. It is worth noting, however, that the sound of motors in the upper Mokihinui catchment is not unusual now – in the form of helicopters. However, with enhanced mountain biking and flatwater options in the lake area, the setting below The Forks will tend towards a frontcountry setting, which is also likely without the scheme in place.
- 8.13 Mr Espiner, in his section 3.3.2, considers my reference to the West Coast CMS in relation to the development of a mountain bike option to

the The Forks as a misinterpretation of the document. However, section 3.6.5.10 of the CMS refers specifically to the Mokihinui River Track, to the Forks Hut, as an authorised mountain biking track. The route is currently described in the Kennett Brothers' national mountain biking guide (Kennett et al 2002), and any development of the track for enhanced pedestrian access – to 'tramping track' standard – will create a popular and sanctioned mountain bike ride. The baseline setting is therefore one with the potential for relatively easy cycling access to The Forks, with or without the MHP. This would create a setting with frontcountry aspects, in terms of relative ease of access, along the entire river gorge, in addition to a proposed frontcountry setting described in the West Coast CMS extending as far as the Rough and Tumble confluence on the Mokihinui River Track (p372).

8.14 Mr Espiner references DOC in his section 3.3.8 as describing the Mokihinui catchment as '*not typical of backcountry remote settings in the Buller region in that it is one of only two such settings offering hut accommodation to users*'. However I disagree as the Department of Conservation website identifies the following six backcountry-remote areas in the Buller District offering accommodation:

- Heaphy Track
- Wangapeka Track
- Buckland Peak
- Karamea River (Greys Hut)
- Kakapo River (Kakapo Hut) – off the Wangapeka Track
- Mokihinui River (Forks Hut)

8.15 Mr Espiner also refers to the DOC CMS for the West Coast in his paragraph 3.3.4 where it states (p228): "Both in New Zealand and worldwide, remote opportunities are a rapidly shrinking resource." This quote is taken from the CMS chapter on remote zones. However, the study area is not a remote zone – it is backcountry-remote. The quote from the CMS goes on to say: "The remote zone differs from the backcountry-remote zone in that the Department does not provide or maintain any recreational facilities within the remote zone. Access therefore presents considerable challenges and people using remote areas need to be self-reliant. In a few cases, remote areas may contain

old marked routes or parts of old track systems and huts that will be left in place until their natural attrition.”

- 8.16 In terms of the availability of backcountry-remote settings, I contend that we are doing quite well as a result of tenure review and the planned removal or lack of replacement of many backcountry huts. There is no evidence to suggest that availability of backcountry-remote settings is in decline or under pressure. If the latter was the case, the recreation opportunity reviews carried out by DOC in 2003 and 2004 would not have seen the level of recommendation to not replace or to remove many old Forest Service huts in these settings.
- 8.17 With or without the MHP in place, the upper catchment will retain its backcountry-remote qualities. It is currently managed for the presence of recreation facilities such as huts and tracks. There may be some minor displacement of existing visitors in the upper catchment to ‘remote’ or ‘wilderness’ areas, but these areas are not managed for the presence of facilities and there is no suggestion that as a result of the MHP proposal the zoning for other recreation settings should change. Also, as I indicate above, the scale of change suggested by Mr Espiner is not of sufficient scale to cause more than a minor change in the experience characteristics of the backcountry-remote setting. It is also as likely that the increased use of the Mokihinui will reflect reduced use and fewer encounters in other settings.

Effects on white water rafting and kayaking

- 8.18 Mr Espiner and I agree that the effect of the proposal on white water activities will be significant. Mr Espiner contends that there is no evidence to suggest that whitewater rafters and kayakers may also participate in flatwater activities. I take the latter as a common understanding of recreation participation patterns, where diversity of recreation pursuits by individuals is common. This is exemplified by the Whitewater Canoe Club’s submission (Graeme Wilson) to the MHP proposal, which states:

We agree that the proposed enhanced pedestrian and mountain bike access, and the provision of flat water kayaking facilities are desirable things. Many of our members also tramp and mountainbike, and many also kayak on flat water and/or sea kayak.

- 8.19 In my evidence I aim to differentiate between the effect of the proposal on whitewater activities, which will be significant, and the 'net recreation effect'. The mitigation that I speak of relates to recreation in the setting in a broad sense – the 'net recreation effect', which takes into account the diverse recreation pursuits of many individuals. I do not see any mitigation possible for the loss of the whitewater setting, and I do not modify my effect assessment for whitewater as a result of the potential to increase the net level of recreation activity in the setting. The latter relates to the regional recreation scene in reference to its general level of recreation participation and opportunity – where the net effect may be minor or indeed positive. The effect on whitewater activities on the Mokihinui River will be significant.

Effects on trout and whitebaiting

- 8.20 I restrict my comments to recreational effects associated with trout angling and whitebaiting.
- 8.21 Mr Espiner says that until the aquatic ecology issues around the whitebait fishery are resolved, he cannot determine the likely effects on whitebaiting. As I have discussed above, the evidence of Mr Bonnett concludes that as the dam will be operated during the whitebait season as a 'run of the river system' (ie outflows will as closely as practicable match inflows) and therefore there will be no ramping rate effect. As such, considering that the footprint of the proposal is above all whitebaiting sites and whitebaiters should be unaware of flow variations induced by the scheme, the potential of the setting for whitebaiting will be unaffected. Mr Bonnett comments on potential effects on the fish.
- 8.22 Mr Espiner suggests that the MHP will have more than minor effects on angling given that the North and South Branches offer a potentially nationally significant 'wilderness fishery'. As discussed above in relation to trout angling, the increased potential for access will result in higher encounter rates and this can have both positive and negative outcomes – more people will enjoy the setting, but existing users can have a reduced sense of isolation. There is the potential for a decline in trophy fish and this could also have an adverse effect. However, the setting is likely to see increased angling as a result of improved access with or without the MHP in place.

Conditions

- 8.23 In his review Mr Espiner recommends several conditions of consent. These do not appear to have been adopted in the suggested conditions in Appendix 3 of the Section 42A report. However, for completeness I address Mr Espiner's suggestions here.
- 8.24 Mr Espiner recommends a management plan for the area affected by the scheme and says that the plan should be consistent with principles in the Recreation Opportunity Spectrum (ROS) and Limits to Acceptable Change (LAC). I agree that a management plan, particularly one dealing with the management by the District Council of motorised activities on the lake setting, would be useful. However, I disagree with the reference to ROS and LAC.
- 8.25 The setting beyond the lake will be within Conservation land and managed as per the CMS. The CMS may need review by the Department of Conservation in light of the MHP, and as part of planning for the proposed Kawatiri Heritage Park. Application of the ROS to this management process is taken as read, considering it is a foundation concept for national recreation planning and the West Coast CMS. A LAC study is, however, in my opinion, (one I hold strongly), a long, complex and academic exercise and it is rarely applied in New Zealand. I understand LAC studies have been completed at Mason Bay on Stewart Island and on the Tongariro Crossing. However, to implement the LAC, managers require the ability to control access to an area, which may be applicable to some tourism via limited concessions, but does not apply where 'wander at will' policies apply – which is to casual use of almost all New Zealand's conservation lands, including wilderness areas, and, inevitably, the proposed lake on the Mokihinui for, at least, non-motorised activities. I would be comfortable recommending management planning for the area, but I would not prescribe the approach as a consent condition.
- 8.26 Mr Espiner recommends the facilitation of a transport service to assist egress down the proposed lake for whitewater kayakers and rafters from the North Branch. While this is laudable, I question its practicality. Use of the North Branch is infrequent and I doubt a stand-alone service would be feasible. However, I fully expect that a boat service on the lake will eventuate as part of developments for tourism in the area – as it has on the likes of Lake Matahina. The operation of a service in the Mokihinui

would be controlled by the management plan for the lake, and I would allow this process to be completed before prescribing such an outcome. In my opinion this is not, therefore, an appropriate condition of consent.

- 8.27 Otherwise, I support Mr Espiner's other recommendations for consent conditions, although they are generally subsumed by my broad recommendation for a management plan for the lake.

9. CONCLUSION

- 9.1 The key effects of the proposal relate to white water activities, which are regionally important, and where the effect of the scheme will be significant. The backcountry or wilderness fishery experience in the North and South Branches will remain but with some modifications. Operating the scheme as run-of-river during the whitebait season will mean there are no ramping rate effects on whitebaiting.
- 9.2 With the MHP in place, the setting will most likely feature an overall increase in recreational activity in the catchment: a result of track redevelopment, flatwater recreation opportunities, water-based access to the headwaters and greater awareness of the setting in general.
- 9.3 While direct effects on whitewater opportunities cannot be mitigated, the net recreation potential (the total level of general recreational activity) of the setting will most likely be positive. A variety of alternative rafting and kayaking options in the Buller and southern Tasman Districts will be retained.
- 9.4 The submissions I have reviewed have led me to offer more detail about several aspects of the proposal, but they have not led me to change my original assessment.

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