

Before the Hearings Commissioners  
at Christchurch

---

*in the matter of:* a submission and further submission on the proposed  
Canterbury Land and Water Regional Plan under the  
Resource Management Act 1991

*to:* **Environment Canterbury**

*submitter* **Meridian Energy Limited**

Supplementary Statement of evidence of Sarah Dawson

---

Date: 19 June 2013

---

COUNSEL: AR Galbraith QC ([argalbraith@shortlandchambers.co.nz](mailto:argalbraith@shortlandchambers.co.nz))

**Chapman Tripp**  
T: +64 3 353 4130  
F: +64 3 365 4587

245 Blenheim Road  
PO Box 2510, Christchurch 8140  
New Zealand

[www.chapmantripp.com](http://www.chapmantripp.com)  
Auckland, Wellington,  
Christchurch



## **STATEMENT OF SUPPLEMENTARY EVIDENCE OF SARAH DAWSON**

### **Introduction**

1. Meridian Energy Ltd (Meridian) presented evidence to the Commissioners on the Proposed Land and Water Regional Plan (PLWRP) on Thursday the 28<sup>th</sup> of February 2013. I prepared a statement of evidence in chief for Meridian, and presented that evidence to the Commissioners.
2. During the course of Meridian's presentation, the Commissioners raised three matters which Meridian (and more specifically myself) were asked to consider and respond by way of supplementary evidence. Specifically the Commissioners raised the following:
  - 2.1. Meridian proposed in its submission, the amendment of Policy 4.48 and the addition of a number of new policies providing for enhanced benefits from the development of new hydro-electricity generation. These policies all included a requirement to ensure that the best practicable option (BPO) is adopted to prevent or minimise environmental effects. The Commissioners made the valid point that BPO is typically used in discharge scenarios and the definition in the PLWRP reflects this. The Commissioners asked Meridian to consider whether it is appropriate to use the same BPO concept in the policies sought, or some other similar alternative wording which achieves the same intent;
  - 2.2. Meridian proposed a new controlled activity rule for re-consenting the activities of the Waitaki Hydro-Electric Power Scheme. The Commissioners asked Meridian to consider whether the rule should more specifically refer to the activities covered by the rule – e.g. damming, using, diverting and discharging water. Meridian's proposed rule included two broad matters for control. The Commissioners asked Meridian to consider the appropriate scope of matters to include, having regard to the evidence of RDR and Genesis (who proposed similar controlled activity rules with more detailed matters for control);
  - 2.3. Also related to Meridian's proposed new rule for re-consenting, the Commissioners asked Meridian to respond on how a dam can comply with a minimum flow requirement downstream, given it dams the whole river.
3. This brief of supplementary evidence addresses these matters as follows.

### **Use of and Alternatives to the Use of “Best Practicable Option”**

4. Meridian proposed in its submission a number of new policies, and an amendment of Policy 4.48 in providing for enhanced benefits from the development of new hydro-electricity generation. Those new policies all included a requirement to ensure the “best practicable option” (BPO) is adopted to prevent or minimise adverse environmental effects. Their intent was to appropriately enable activities associated with hydro-electricity generation, while ensuring that all practical steps are taken to protect or maintain the environmental or cultural values inherent in the PLWRP objectives.
5. As raised by the Commissioners, “best practicable option” is defined in the PLWRP, and it reflects the corresponding definition in the RMA1991. The scope of that definition is restricted to discharges of contaminants, or emissions of noise. Consequently, it does not cover all of those activities to which Meridian’s proposed new policies are intended to apply. Use of the BPO wording could therefore result in potential uncertainty as to the application of those policies (or conversely, with the existing definition).
6. I have considered three potential options to address this issue, as follows:
  - 6.1. Amend the definition of “best practicable option” to apply to activities relating to hydro-electricity generation. This involves adding an additional clause to the definition, keeping it separate from the current RMA1991 wording;
  - 6.2. Amend the policies to align with the policy approach taken in the Canterbury Regional Policy Statement (CRPS) to managing adverse effects for regionally significant infrastructure. This involves the replacement of references to BPO, and to instead require that “adverse effects on significant natural and physical resources or cultural values are avoided, or where this is not practicable, remedied, mitigated, or offset; and other adverse effects are appropriately controlled”.
  - 6.3. Amend the policies by using wording which is similar to, and achieves the same intent as the use of BPO. This involves the replacement of references to BPO, and to instead require the adoption of “all practicable measures to prevent or minimise adverse effects”.
7. The amendments proposed under the three options are outlined in **Attachment 1**.

8. I consider that the second of the above options (alignment with the CRPS) is the most appropriate option for the following reasons:
- 8.1. It appropriately recognises that, due to its location and scale, it is not practicable in every instance for hydro-electricity infrastructure to avoid all adverse effects on significant natural and physical resources or cultural values;
  - 8.2. It acknowledges the use of offsets as an appropriate tool to address any residual effects on significant resources or cultural values, in order to address any effects which cannot practicably be avoided, remedied, and mitigated;
  - 8.3. By using the same hierarchical approach to managing effects, it gives effect to the objectives and policies of the CRPS in regard to regionally significant infrastructure, particularly Objective 16.2.2, and Policy 16.3.5;
  - 8.4. It gives effect to those policies of the National Policy Statement on Renewable Electricity Generation (NPSREG) which recognise the benefits of renewable electricity generation activities (Policy A). It also acknowledges the practical constraints associated with the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities (Policy C).
9. Overall, it is my opinion that the hierarchal approach to managing effects in the CRPS (and as outlined in **Attachment 1**) should be used as a basis for Meridian's proposed policies and policy amendments, should they be adopted by the Commissioners.

### **Scope of Controlled Activity Rule for Re-Consenting Hydro-Electricity Activities**

10. Meridian proposed a new controlled activity rule for the re-consenting of the activities of the Waitaki Hydro-Electric Power Scheme. Controlled activity status was contingent on compliance with:
- 1. *The same minimum river flow and/or minimum and/or maximum lake level as on the consent being replaced; or*
  - 2. *The relevant (if any) minimum river flow and/or minimum and/or maximum lake level specified in the Plan.*
11. Two broad matters for control were proposed:

a) *Mitigation and remediation measures that are different and separate from the minimum river flow and/or minimum and/or maximum lake level of the existing resource consent; and*

b) *Measurement, monitoring and review requirements.*

12. In my evidence in chief, I considered that a controlled activity rule for re-consenting would better recognise the effects of existing hydro-electricity generation which will not change. Furthermore, it would appropriately recognise hydro-electricity generation as part of the existing environment, and the national significance and benefits of its continued operation.
13. The Commissioners raised whether the proposed rule should specifically list the activities to which the rule relates. Meridian's proposed rule did not do that, instead referring to "any activity for which the rules of this plan require consent and that is a replacement consent...".
14. The Commissioners also raised the scope of the matters for control in the new rule, and whether having regard to the evidence of other planning witnesses, additional matters should be added. The intention of the proposed matters for control was to allow a full range of mitigation and remediation matters to be considered as part of re-consenting, limited only to the extent that they are different and separate from the environmental flow and level regime in the existing consent or Plan.
15. I have considered the scope of the rule, and appropriate matters for re-consenting the Waitaki HEPS. In so doing, I have looked at how hydro-electricity activities are currently provided for in the Waitaki Catchment Water Allocation Regional Plan (WAP). I have also considered the expert planning evidence of RDR, Genesis, and Trustpower.
16. I propose that the rule be amended as shown in **Attachment 1**. The amendments introduce a listing approach to the activities covered by the rule. This is consistent with the approach of the PLWRP rules, and would provide clarity and certainty. I consider that such a rule needs to cover sections 9, 14 and 15 RMA1991 matters, specifically the use of land; the take, use, damming, or diverting of water; and the discharge of contaminants or water to water. The section 9 matters would only relate to those matters within the ambit of the LWRP and the Regional Council's functions.
17. I consider there is scope under Meridian's submission to make this change. Meridian's submission sought "*a new rule before rule 5.99 which provides for replacement consents for hydro electricity generation for the Waitaki Hydro Electric Power Scheme as a controlled activity*". The specific rule suggested in Meridian's submission also

provided for the full range of activities under sections 9 – 15 of the RMA1991.

18. On the basis of Meridian's submission, section 13 matters do not need to be covered. Those matters are provided for under a suite of proposed and PLWRP rules which are sought to be amended. For example, Meridian has requested a new rule providing for the maintenance, upgrading and minor alteration of lawfully established dam and ancillary structures as a permitted activity. Furthermore, it has sought that Rule 5.132 be amended to make the use of structures associated with a lawfully established hydro scheme, a permitted activity. In the event, these positions are not accepted by the Commissioners, section 13 matters should be added to the controlled activity rule I recommend.
19. Rather than requiring compliance with the flow and level regime of the existing consent, the amended rule only requires compliance with any minimum flow/level regime in the Plan. I consider it is appropriate that a controlled activity pathway is only enabled where compliance with a Plan regime is achieved. Plan flow/level regimes should be able to override an existing consent regime at the time of re-consenting, as they represent the current intended environmental flow and allocation outcomes for a catchment, including in relation to hydro-electricity generation. Requiring compliance with a Plan regime would also achieve consistency with other rules for water takes in the PLWRP, which require compliance with the flow/level regime.
20. The planning witnesses for RDR (Mr N Bryce), Genesis (Mr P Mitchell), and Trustpower (Mr R Turner) have proposed extensive lists of the matters to which control should be exercised. These lists generally cover a broad range of environmental effects relevant to re-consenting hydro-electricity generating activities.
21. It is common for controlled activity rules to include long lists of matters for control. However, in my opinion, that is unnecessary for hydro-electricity generating activities where a considerable range of environmental effects may be relevant and should be considered. Unless carefully drafted, long lists risk becoming nothing more than a checklist, rather than any meaningful criteria for assessment, and can potentially result in some relevant effects being excluded.
22. I consider that a better approach is to keep the matters for control open to all actual and potential effects. However, as proposed in Meridian's original rule, matters relating to the flow/level regime in the Plan should however be exempt from further consideration. It would, in my opinion, be inappropriate to revisit limits which have been established in the Plan, through a controlled activity consenting process. Non-compliance with those requirements should be assessed as a discretionary or non-complying activity (i.e. as per Rule 5.100 of the PLWRP). Further, if the flow/level regime is established by another

Plan such as the WAP, activity status and matters for consideration, if specified, in relation to that flow and level regime should be left to that other Plan.

23. I therefore propose that the matters for control follow the approach originally proposed by Meridian, but that the matters which are exempt relating to the Plan's flow/level and allocation regime are expanded upon for clarity and certainty. Using the WAP as a reference point, I consider the matters which are exempt should extend to the following:
1. Any minimum river flow or lake level;
  2. Any rate of allocation;
  3. Any volume of annual allocation;
  4. Any flow sharing requirements to apportion flow rates between in-stream and out-of-stream;
  5. Any flushing flow requirements.
24. One additional specific matter, which is proposed by other planning witnesses, is included, enabling consideration of "measures to improve the efficiency of water use and conveyance." This would give effect to policies of the PLWRP which support efficient use of water for hydro-electricity generation (e.g. policy 4.48, and 4.70).
25. Overall, I consider that the controlled activity rule outlined in **Attachment 1** should be used as a basis for re-consenting of the Waitaki HEPS in the PLWRP.

### **Damming Achieving a Minimum River Flow**

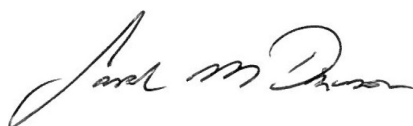
26. In relation to the conditions of Meridian's proposed controlled activity rule for re-consenting, the Commissioners also asked how damming is able to achieve a minimum river flow downstream, as it dams the whole river.
27. I acknowledge that damming in its purist form involves the impoundment of a whole river. However, the reality is that most forms of damming of rivers involve some downstream release of water as part of their functioning. For example, hydro-electricity dams by their nature release water downstream to generate electricity, bypass flood flows, and provide for downstream water takes and environmental values.

28. In my experience, it is common for water permits associated with hydro-electricity dams to require a minimum flow downstream. Environmental flow and allocation regimes included in Regional Plans similarly often require minimum flows to be maintained downstream of a dam. A relevant example is the WAP, which requires the provision of a minimum river flow and flushing flows immediately downstream of the Waitaki Dam in the Lower Waitaki River.
29. In recognition of the above, I consider it appropriate that the controlled activity re-consenting rule proposed by Meridian requires compliance with an environmental flow and allocation regime, which may include minimum river flow requirements downstream.

### **Application of Meridian's Proposed and Amended Rules**

30. In preparing this brief of supplementary evidence, it was apparent to me that it may be unclear to the Commissioners how the rules sought by Meridian are intended to work as an overall package in providing for hydro-electricity activities.
31. For clarity, I have included a table in **Attachment 2** which sets out how the amendments to existing rules and the new rules proposed by Meridian (including those amendments included in this brief). For each rule, I have identified whether it would apply to:
1. Ongoing use of existing hydro;
  2. Replacement consents for existing hydro;
  3. Maintenance, upgrading, and minor alteration of existing hydro;  
and
  4. New hydro.
32. I hope the Commissioners find this table helpful.

Dated: 19 June 2013



---

Sarah Margaret Dawson



## ATTACHMENT 1

### ALTERNATIVE WORDING OPTIONS FOR PLWRP PROVISIONS

Note all changes shown to the provisions below are based on the Proposed Plan as amended by Meridian's submission and evidence presented to the hearing.

The text shown as *underlined italics* and ~~crossed-out~~ in **black** shows those amendments sought by Meridian's submission, as amended by evidence

The text shown as *underlined italics* and ~~crossed-out~~ in **red** shows the new suggested amendments.

#### USE OF, OR ALTERNATIVES TO USE OF, "BEST PRACTICABLE OPTION"

##### **Option 1 – Change Definition of BPO**

###### ***Best Practicable Option***

*in relation to a discharge of a contaminant or an emission of noise, means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to*

–

- a) the nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and*
- b) the financial implications, and the effects on the environment, of that option when compared with other options; and*
- c) the current state of technical knowledge and the likelihood that the option can be successfully applied.*

*'Best practicable option' is also applied elsewhere in this Plan in relation to activities for hydro-electricity generation, in which cases the following matter applies to those activities instead of a) above:*

- a) the nature of the activity and the sensitivity of the receiving environment to adverse effects; and*

## **Option 2 – Revert to CRPS Approach to Managing Adverse Effects (recommended)**

### **Taking, Use, Damming and Diversion of Water in Water Bodies**

4.XX Provide for taking, use, damming and diversion of water associated with regionally or nationally significant infrastructure while ensuring ~~the adoption of the best practicable option to prevent or minimise any actual or likely adverse effect on the environment:~~

- a) ~~the adverse effects on significant natural and physical resources or cultural values are avoided, or where this is not practicable remedied, mitigated, or offset; and~~
- b) ~~other adverse effects on the environment are appropriately controlled.~~

### **Abstraction and Use of Water**

4.48 Existing hydro electricity generation and irrigation schemes are recognised as a part of the existing environment. In re-consenting the take, use, damming and diversion of water associated with the schemes, it is expected that ~~the adoption of the best practicable option will occur so as to where appropriate improve~~ where appropriate and practicable there will be improvements ~~improvements will occur~~ in the efficiency of water use and conveyance assessed over the life of the consent and reductions in any adverse effects on flows and levels in water bodies in order to maximise the term of the consent.

### **Efficient Use of Water**

4.XX Provide for enhancements in the storage potential and generation output of existing hydro electricity infrastructure, while ensuring ~~the adoption of the best practicable option to prevent or minimise any actual or likely adverse effect on the environment:~~

- a) ~~the adverse effects on significant natural and physical resources or cultural values are avoided, or where this is not practicable remedied, mitigated, or offset; and~~
- b) ~~other adverse effects on the environment are appropriately controlled.~~

### **Activities in Beds of Lakes and Rivers**

4.XX Provide for earthworks, structures, and vegetation removal associated with regionally or nationally significant infrastructure while ensuring ~~the adoption of the best practicable option to prevent or minimise any actual or likely adverse effect on the environment:~~

- a) ~~the adverse effects on significant natural and physical resources or cultural values are avoided, or where this is not practicable remedied, mitigated, or offset; and~~
- b) ~~other adverse effects on the environment are appropriately controlled.~~

### **Option 3 – Use of Similar Wording to BPO**

#### **Taking, Use, Damming and Diversion of Water in Water Bodies**

4.XX Provide for taking, use, damming and diversion of water associated with regionally or nationally significant infrastructure while ensuring the adoption of ~~the best all practicable measures option~~ to prevent or minimise any actual or likely adverse effect on the environment.

#### **Abstraction and Use of Water**

4.48 Existing hydro electricity generation and irrigation schemes are recognised as a part of the existing environment. In re-consenting the take, use, damming and diversion of water associated with the schemes, it is expected that ~~the adoption of the best practicable option will occur so as to where appropriate improve, where appropriate, all practicable measures will be adopted to improve~~ there will be improvements in the efficiency of water use and conveyance assessed over the life of the consent and reductions in any adverse effects on flows and levels in water bodies in order to maximise the term of the consent.

#### **Efficient Use of Water**

4.XX Provide for enhancements in the storage potential and generation output of existing hydro electricity infrastructure, while ensuring the adoption of ~~the best all practicable measures option~~ to prevent or minimise any actual or likely adverse effect on the environment.

#### **Activities in Beds of Lakes and Rivers**

4.XX Provide for earthworks, structures, and vegetation removal associated with regionally or nationally significant infrastructure while ensuring the adoption of ~~the best all practicable measures option~~ to prevent or minimise any actual or likely adverse effect on the environment.

## **CONTROLLED ACTIVITY RULE FOR RECONSENTING HYDRO-ELECTRICITY GENERATION**

### **Take and Use Surface Water**

~~**5.XA Any activity for which the rules of this Plan require consent and that is a replacement consent or is ancillary to a replacement consent for hydro electricity generation for the Waitaki Hydro Electric Power Scheme is a controlled activity at the time of which application for replacement consent is made, provided the following conditions are met:**~~

- ~~1. The activity is subject to the same minimum river flow and/or minimum and/or maximum lake level as on the consent being replaced; or~~
- ~~2. The activity complies with the relevant (if any) minimum river flow and/or minimum and/or maximum lake level specified in this Plan.~~

~~The CRC reserves its control over the following matters:~~

- ~~a) mitigation and remediation measures that are different and separate from the minimum river flow and/or minimum and/or maximum lake level of the existing resource consent; and~~
- ~~b) measurement, monitoring and review requirements.~~

**5.XA Any activity associated with hydro electricity generation by the Waitaki Hydro Electric Power Scheme, to:**

- **use land**
- **take, use, dam, or divert water,**
- **discharge contaminants or water to water,**

**for which the application is for the replacement of an existing consent, and for which the rules of this Plan require consent, is a controlled activity, provided the activity complies with the environmental flow and level regime in this Plan.**

*The CRC reserves its control over the following matters:*

- a) *Measures to remedy or mitigate adverse effects, provided that where any of the following measures are specified in the relevant operative Plan for the relevant river or lake:*
  - *Any minimum river flow or lake level;*
  - *Any rate of allocation;*
  - *Any volume of annual allocation;*
  - *Any flow sharing requirements to apportion flow rates between in-stream and out-of-stream;*
  - *Any flushing flow requirements;**the CRC may not exercise its control in relation to that measure for that river or lake;*
- b) *Measures to improve the efficiency of water use and conveyance;*
- c) *Measurement, monitoring, information and review requirements.*

**ATTACHMENT 2**

**APPLICATION OF MERIDIANS PROPOSED RULES FOR HYDRO-ELECTRICITY GENERATING ACTIVITIES**

Rule	Applies to			
	Ongoing Use of Existing Hydro	Replacement Consents for Existing Hydro	Maintenance, Upgrading, and Minor Alteration of Existing Hydro	New Hydro
<b>Take, Use, and Discharge of Water</b>				
<p><b>5.99 The taking and use of water from a lake, river or artificial watercourse and discharge of the same water to the same, <u>or downstream</u> lake, river or artificial watercourse <u>in the same catchment</u> is a restricted discretionary activity, provided the following conditions are met:</b></p> <ol style="list-style-type: none"> <li>1. Limits have been set for that surface water body in Sections 6-15 or the lake or river is subject to a Water Conservation Order;</li> <li>2. The taking of water and subsequent discharge will have no effect on the limits set for that water body in Sections 6-15 or the flow and allocation regime set out in the Water Conservation Order;</li> <li><del>3. The maximum distance from the point of take to the point of discharge is not more than 250 m; and</del></li> <li><del>4.3</del> The take is not from a natural wetland, hāpua or a high naturalness lake or river that is listed in Sections 6-15.</li> </ol>				As a result of Meridian's submissions, this rule would apply to all non-consumptive water take, use, and discharge for new hydro-generation

Rule	Applies to			
	Ongoing Use of Existing Hydro	Replacement Consents for Existing Hydro	Maintenance, Upgrading, and Minor Alteration of Existing Hydro	New Hydro
<p><b><i>The CRC will restrict discretion to the following matters:</i></b></p> <ol style="list-style-type: none"> <li>1. Measures that will ensure the limits are not affected;</li> <li>2. Whether the amount of water to be taken is reasonable for the intended use;</li> <li>3. The effects the take has on any other authorised takes or diversions;</li> <li>4. The potential to frustrate or prevent the attainment of the regional network for water harvest, storage and distribution, shown on the Regional Concept diagram in Schedule 16;</li> <li>5. The reduction in the rate of take in times of low flow and the need for any additional restrictions to prevent the flow from reducing to zero;</li> <li>6. Whether and how fish are prevented from entering the water intake;</li> <li>7. Effects on aquatic ecosystems, in-stream habitat, wetlands, sites of significance to Ngāi Tahu, amenity &amp; recreational values in the area of the river subject to the diversion; and</li> <li>8. Effects of both take or diversion and discharge on water quality.</li> </ol>				

Rule	Applies to			
	Ongoing Use of Existing Hydro	Replacement Consents for Existing Hydro	Maintenance, Upgrading, and Minor Alteration of Existing Hydro	New Hydro
<p><b>5.100</b> The taking and use of water from a lake, river or artificial watercourse and discharge of the same water to the same, <u>or downstream</u> lake, river or artificial watercourse <u>in the same catchment</u> that does not meet one or more of the conditions in Rule 5.99 is a non-complying activity.</p>				As a result of Meridian's submissions, this rule would apply in circumstances where conditions of rule 5.99 above are not met.
<b>Re-Consenting of Activities Associated with Existing Hydro-Electricity Generation</b>				
<p><b><u>5.XA Any activity associated with hydro electricity generation by the Waitaki Hydro Electric Power Scheme, to:</u></b></p> <ul style="list-style-type: none"> <li>• <b><u>use land</u></b></li> <li>• <b><u>take, use, dam, or divert water,</u></b></li> <li>• <b><u>discharge contaminants or water to water,</u></b></li> </ul> <p><b><u>for which the application is for replacement of an existing consent, or is ancillary to such a replacement consent, and for which the rules of this Plan require consent, is a controlled activity, provided the activity complies with the</u></b></p>		Rule applies to the replacement of all consents for take, use, damming, diversion, and discharge for existing hydro-generation (except that structures are permitted under rule 5.132 below)		

Rule	Applies to			
	Ongoing Use of Existing Hydro	Replacement Consents for Existing Hydro	Maintenance, Upgrading, and Minor Alteration of Existing Hydro	New Hydro
<p><b><u>environmental flow and level regime in this Plan.</u></b></p> <p><i>The CRC reserves its control over the following matters:</i></p> <p>d) <u>Measures to remedy or mitigate adverse effects, provided that where any of the following measures are specified in the relevant operative Plan for the relevant river or lake:</u></p> <ul style="list-style-type: none"> <li>- <u>Any minimum river flow or lake level;</u></li> <li>- <u>Any rate of allocation;</u></li> <li>- <u>Any volume of annual allocation;</u></li> <li>- <u>Any flow sharing requirements to apportion flow rates between in-stream and out-of-stream;</u></li> <li>- <u>Any flushing flows requirements;</u></li> </ul> <p><u>the CRC may not exercise its control in relation to that measure for that river or lake;</u></p> <p>e) <u>Measures to improve the efficiency of water use and conveyance;</u></p> <p>f) <u>Measurement, monitoring, information and review requirements.</u></p>				
<b>Use, Maintenance, Upgrading, and Minor Alteration of Structures other than Dams (including Associated Temporary Structures, Discharges, and Diversions)</b>				
<p><b>5.117 For structures, (excluding dams), lawfully established prior to the notification of this Plan, the use, <del>and</del> maintenance, <u>upgrading and minor alteration</u> of the structure, <u>including maintenance of its hydraulic capacity and function</u>, is a permitted activity provided the following conditions <del>is</del> <u>are met</u>:</b></p> <p>1. Any substance deposited in, on, under or over the bed in order to maintain the structure is of inert materials of colour and material type that blends with the</p>	(Use of existing structures for hydro-generation addressed under rule 5.132 below)		As a result of Meridian's submissions, the rule would apply to maintenance, upgrading and minor alteration of	



Rule	Applies to			
	Ongoing Use of Existing Hydro	Replacement Consents for Existing Hydro	Maintenance, Upgrading, and Minor Alteration of Existing Hydro	New Hydro
<p>surrounding natural environment, is not contaminated with any hazardous substance and is not deposited into surface water.</p> <p><u>2. Any minor alteration shall not increase the footprint, height, or external envelope of the structure.</u></p>			existing structures, other than dams (associated temporary structures, discharges and diversions are addressed under rules below)	
<p><b>5.118 Notwithstanding any other rule in this Plan, temporary structures and diversions associated with undertaking activities in Rules 5.113 to 5.117 and 5.125 to 5.127 are permitted activities, provided the following conditions are met:</b></p> <ol style="list-style-type: none"> <li>1. The diversion does not divert more than one third of the width of the naturally flowing or stranding water body;</li> <li>2. The activity is not undertaken in an inanga or salmon spawning site listed in Schedule 17; and</li> <li>3. The diversion is in place for not more than 2 weeks in any 12 month period.</li> </ol>			Rule applies to temporary structures and diversions associated with maintenance, upgrading, and minor alteration of existing structures	

Rule	Applies to			
	Ongoing Use of Existing Hydro	Replacement Consents for Existing Hydro	Maintenance, Upgrading, and Minor Alteration of Existing Hydro	New Hydro
<p><b>5.119 Temporary discharges to water or to land in circumstances where a contaminant may enter water associated with undertaking activities in Rules 5.113 to 5.117 and 5.125 to 5.127 are permitted activities, provided the following conditions are met:</b></p> <ol style="list-style-type: none"> <li>1. The discharge is only of sediment and water originating from within the bed of the lake or river;</li> <li>2. The discharge is not undertaken in an inanga or salmon spawning site listed in Schedule 17; and</li> <li>3. The discharge is not for more than eight hours in any 24-hour period, <del>and not more than 40 hours in total in any calendar month.</del></li> </ol>			Rule applies to temporary discharges to water associated with maintenance, upgrading, and minor alteration of existing structures	
<p><b><u>5.XX Temporary discharges to land or water within artificial watercourses as part of the maintenance of watercourse structures, are a permitted activity, provided the following conditions are met;</u></b></p> <ol style="list-style-type: none"> <li><u>1. The discharge is only of water, sediment, and vegetative matter from within the confines of the artificial watercourse.</u></li> <li><u>2. The discharge does not cause an adverse effect on water outside of the artificial watercourse</u></li> </ol>			Rule applies to temporary discharges to land or water associated with maintenance of artificial watercourse structures	

Rule	Applies to			
	Ongoing Use of Existing Hydro	Replacement Consents for Existing Hydro	Maintenance, Upgrading, and Minor Alteration of Existing Hydro	New Hydro
5.121 Any structure, <i>(excluding dams)</i> , <i>including any associated diversions and discharges in the bed of a lake or river that does not comply with Rules 5.113 to 5.120</i> is a discretionary activity.			Rule applies in circumstances where conditions of Rules 5.117-119 above are not met	
<p>5.132 The use of <del>a structures</del> in the bed of a river associated with a lawfully established hydroelectricity power scheme <del>that existed on 1 November 2013</del> is a <del>controlled</del> <i>permitted</i> activity, <i>provided the following conditions are met:</i></p> <p><del><i>The CRC reserves control over the following matters:</i></del></p> <ol style="list-style-type: none"> <li><del>1. The maintenance of, or improvement of, fish passage;</del></li> <li><del>2. The risk of dam failure;</del></li> <li><del>3. Whether and how fish are prevented from entering any intake structures;</del></li> <li><del>4. Passage of flood waters.</del></li> </ol>	Rule applies to ongoing use of existing structures (including dams) for existing hydro-generation	Rule applies to ongoing use of existing structures (including dams) for existing hydro-generation, including where other activities associated with existing hydro require replacement consents.		

Rule	Applies to			
	Ongoing Use of Existing Hydro	Replacement Consents for Existing Hydro	Maintenance, Upgrading, and Minor Alteration of Existing Hydro	New Hydro
<b>Diversion of Water</b>				
<b><u>5.XX Any diversion, not provided for by rules 5.113 to 5.121 is a discretionary activity.</u></b>				Rule applies to all diversions for new hydro-generation
<b>Damming of Water</b>				
<p><b><u>5.XX The maintenance, upgrading and minor alteration of lawfully established dam and ancillary structures, including maintenance of its hydraulic capacity is a permitted activity, provided the following conditions are met:</u></b></p> <p><u>1. Any substance deposited in, on, under or over the bed in order to maintain the structure is of inert materials of colour and material type that blends with the surrounding natural environment, is not contaminated with any hazardous substance and is not deposited into surface water.</u></p> <p><u>2. Any minor alteration shall not increase the footprint, height, or external envelope of the structure.</u></p>			Rule applies to the maintenance, upgrading, and minor alteration of existing dams.	

Rule	Applies to			
	Ongoing Use of Existing Hydro	Replacement Consents for Existing Hydro	Maintenance, Upgrading, and Minor Alteration of Existing Hydro	New Hydro
<b><u>5.XX The maintenance, upgrading, and minor alteration of lawfully established dam and ancillary structures, including maintenance of its hydraulic capacity, that does not meet the conditions of rule 5.XX, is a discretionary activity.</u></b>			Rule applies in circumstances where conditions of rule 5.XX above are not met	
<p><b>5.128 The damming of water in the bed of a river and the constructing, using, <del>altering, maintaining</del> and operating dam structures <del>within the bed of a river</del>, and the use of land to store water, including any associated impounding of water outside the bed of a river or natural lake is a permitted activity, provided the following conditions are met:</b></p> <ol style="list-style-type: none"> <li>1. For the impounding of water outside the bed of a river or natural lake:               <ol style="list-style-type: none"> <li>(a) the volume of water stored or impounded is less than 20,000 m3;</li> <li>(b) the maximum depth of water is less than 3 m; and</li> <li>(c) if the volume of water impounded is greater than 1,000 m3, the design and construction of the dam is certified by a chartered professional engineer (civil); and</li> </ol> </li> <li>2. For the damming of water in the bed of a river and the constructing, altering,</li> </ol>			Rule applies to all small scale dams for new hydro-generation	

Rule	Applies to			
	Ongoing Use of Existing Hydro	Replacement Consents for Existing Hydro	Maintenance, Upgrading, and Minor Alteration of Existing Hydro	New Hydro
<p>using, maintaining and operating of dam structures within the bed of a river:</p> <p>(a) The volume of water impounded is less than 5,000 m<sup>3</sup>;</p> <p>(b) The maximum depth of water is less than 3 m;</p> <p>(c) The dam does not impound the full flow of the river;</p> <p>(d) Any existing passage of fish is not impeded;</p> <p>(e) The damming of water does not cause water flow to fail to meet any limits in Sections 6-15 or fall below the minimum flow for the surface water body if the water body is subject to a minimum flow as set out in Sections 6-15;</p> <p>(f) The dam is not located in a river listed as a high naturalness river in Sections 6-15 or in the mainstem of any river; and</p> <p>(g) The damming does not prevent water being taken by any domestic or stock water supply, or reduce the reliability of supply of any existing legally authorised water take.</p>				

Rule	Applies to			
	Ongoing Use of Existing Hydro	Replacement Consents for Existing Hydro	Maintenance, Upgrading, and Minor Alteration of Existing Hydro	New Hydro
<p><b>5.129 The damming of water in the bed of a river and the constructing, using, <del>altering, maintaining</del> and operating structures within the bed of a river, and the use of land to store water, including any associated impounding of water outside the bed of a river or natural lake that does not meet the conditions of Rule 5.128 is a discretionary activity, provided the following conditions are met:</b></p> <ol style="list-style-type: none"> <li>1. The damming of water does not cause water flow to fail to meet any limits set in Sections 6-15;</li> <li>2. The dam is not located in a river listed as an high naturalness lake or river in Sections 6-15 or in the mainstem of any river; and</li> <li>3. The damming does not prevent water being taken by any domestic or stock water supply, or reduce the reliability of supply of any existing legally authorised water take.</li> </ol>				Rule applies to all other dams for new hydro-generation
<p><b>5.130 The damming of water in the bed of a river, including the associated constructing, using, <del>maintaining</del> and operating structures within the bed of a river that does not comply with one or more of the conditions in Rule 5.129 is a non-complying activity.</b></p>				Rule applies in circumstances where the conditions of rule 5.129 above are not met.

Rule	Applies to			
	Ongoing Use of Existing Hydro	Replacement Consents for Existing Hydro	Maintenance, Upgrading, and Minor Alteration of Existing Hydro	New Hydro
<p><b>5.131 The constructing of a new dam and the damming of water in the bed of a river or lake that results in the natural operating regime or level of an <u>existing unmodified</u> natural lake being altered is a <del>non-complying</del> <u>discretionary</u> activity.</b></p>				<p>As a result of Meridian's submissions, the rule would apply to new dams which results in the natural operating regime of an existing unmodified natural lake being altered</p>