

By email

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[Internal]

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Dear Andrew

Response to further information request under section 92(1) of the RMA 91 - WGN150094 [33210] – Wainuiomata River Resource Consent Application

Thank you for your letter dated 26 May 2015 regarding the above.

I have reviewed your request for further information and, as already discussed with you at our meeting on the 10 June 2015, we will need additional time to provide all the requested information. Due to the potential complexity and detail required the following dates are the earliest in which I believe that we can provide, to an appropriate standard, the further information requested.

- Mapping of flood protection structures and other features by the 3 July 2015
- Additional information associated with the Wainuiomata River and noted in the table below to be provided by the 19 September 2015.

A comparison between river communities in the ‘application area’ and in ‘unaffected reference areas’ has not been undertaken in any detail as in our view it will not provide information specifically relating to the effects of flood protection activities.

Flood Protection activities are undertaken in parts of the catchment which have been impacted by agricultural and/or urban development. The ‘unaffected reference areas’ referred to by EOS are almost invariably located in undeveloped parts of the catchment. The comparison requested would be between the urbanised main stem of the Hutt River and the relatively pristine upper reaches which is a smaller watercourse and mostly in forested catchments. There will certainly be differences in the aquatic ecology, but these will be primarily related to deforestation, loss of riparian vegetation, agricultural land use, urban development, inputs of nutrients and other contaminants, introduced pest species, as well as flood protection activities.

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The approach taken, as described in the AEE, is to undertake a series of targeted before-after-upstream and downstream investigations of flood protection activities which are specifically designed to separate out the effects of those activities. These studies have been undertaken on the Hutt River for fish and invertebrate re-colonisation (Perrie, 2013) habitat quality (Cameron, 2013), and in northern Wairarapa Rivers for sediment deposition, periphyton, invertebrates and fish (Death and Death, 2013). A further study is currently underway on the Hutt River in relation to habitat quality, water quality and fish re-colonisation (Cameron 2015, in progress).

Having said this we intend to provide the following additional information outlined below:

Macroinvertebrates

A more detailed description on the macroinvertebrate communities, and a comparison between the application area and unaffected reference area can be undertaken. However it is unlikely that invertebrate data will be available for the hyporheic zone in the Wainuiomata River (the hyporheos is composed of those taxa that occur in the water saturated, sub-surface zone below many gravel-bed streams - includes both obligate hyporheic taxa that are rarely found in surface waters and taxa that are common members of the surface benthos). Similarly, we are not aware of any macroinvertebrate data from non-wadeable habitats in the Wainuiomata. There is no national protocol for this type of survey and is not covered by SOE monitoring. We can provide a general outline of the deep water and hyporheic habitat types, noting that site specific data is not available. The commissioning of a specialist study to provide this information is not however being proposed.

Fish

The existing information will be updated to show where each fish species has been found in relation to the application area, which are likely to be of most concern, and which fish spawn in these reaches. We can compare reference and impact data, but as noted above for the Hutt River, this is unlikely to provide useful information of effects of flood protection activities.

Water quality

Data from 2004 and trend analysis from the SOE report can be provided but this will not provide any additional trend analyses.

Gravel bar and beach flora and fauna

This is dynamic and constantly changing, therefore not viable to map. A generalised description can be provided.

Birds

As stated in the ecology AEE, the river in the application area is not likely to support breeding populations of river nesting birds. We can compile available data in a brief technical appendix to support an expanded description.

Herpetofauna

We will undertake a search of the lizard database.

Riparian Vegetation – refer to the COP timetable at section 3.2.1. It is intended that these surveys will be completed within three years of the consents being granted and at 9 year intervals thereafter.

Options for integration of native trees with willows for bank edge protection by the 30 November 2015, including potential retirement of willow stands.

Included below is a table indicating what further information will be lodged and when.

Further Information Request – WGN140054 [32483], [32484], [32485], [32486], [32487] and [32488]	Date to be provided by
<p>3. Maps - Please provide an overview map or maps at a suitable scale, showing the areas covered by the application, the affected tributaries, the main existing flood protection features (e.g. willow plantings, rip-rap rock linings, groynes), and any ecological site survey locations referred to in the application (please refer to Fish at point 5 below).</p>	Mapping of flood protection structures and other features by the 3 July 2015
<p>Macroinvertebrates – Please provide full details and a description of the invertebrate communities, including for habitats affected by gravel extraction and bed/beach recontouring, the hyporheic zone and deeper, non-wadeable habitats. If MCI surveys of the affected tributaries are not possible, please provide prediction data from the <i>Freshwater Ecosystems of New Zealand (Leathwick et al, 2010)</i>¹.</p> <p>Fish – Please provide more information on the fish species that are of most concern, such as those that are most abundant and spawn in the area covered by the application, and especially in habitats that are affected by proposed gravel extraction and beach contouring. Please compare data for impacted and reference reaches of the Wainuiomata River.</p> <p>Water quality – Please provide the water quality data that exists from 2004.</p> <p>Gravel bar and beach flora and fauna - Please provide more information on the flora and fauna of gravel bars and beaches that might be affected by gravel extraction and beach recontouring.</p> <p>Riparian vegetation – Please provide a more complete description of riparian vegetation in the application area. Please describe in detail and show on maps any remnant native vegetation in the area or significant areas of native vegetation.</p> <p>Birds – Please provide more detailed information on the bird species of most concern, such as those native or endemic species that roost, feed, nest or rest in the area covered by the application.</p> <p>Herpetofauna – Please provide details in relation to herpetofauna that could be present in the consent application area.</p> <p>Macrophytes – Please confirm if aquatic vegetation removal is proposed. It would appear this is unlikely given the application area is only for the main channel of the</p>	<p>19 September 2015</p> <p>Note comments above</p> <p>Refer to the COP timetable at section 3.2.1. It is intended that these surveys will be completed within three years of the consents being granted and at 9 year intervals thereafter.</p>

¹ Leathwick, J.R., West, D., Gerbeaux, P., Kelly, D., Robertson, H., Brown, D., Chadderton, W.L., and Ausseil, A.-G. 2010. Freshwater Ecosystems of New Zealand (FENZ) Geodatabase Version One – August 2010 – User Guide. Department of Conservation. 57 p. S92 RESPONSE [1497564]

<p><i>river. However, it is mentioned in the application and clarification is required.</i></p>	
<p>Environmental Monitoring Plan</p> <ul style="list-style-type: none"> • Please provide further details in relation to the proposed bird monitoring and its workability including details of the justification for the proposed percentage triggers. • Please provide further details on the proposed pool and riffle counts using aerial photography. Please discuss how features obscured by vegetation are accounted for, and discuss whether the variability of habitats (depth, area, ecological value) would be noted or whether the proposed methodology simply counts features. • Please provide any information available on the optimal width of willow plantings to achieve the objective of vegetative bank protection. Please identify any areas where willow planting can be retired over time and natives planted instead. 	<p>19 September 2015 - with information also to be included in an updated EMP</p> <p>30 November 2015</p>

Please feel free to contact me on 04 830 4045 if you have any questions or concerns

Yours sincerely

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