

Steve Rice

From: Bridget Robson [bridget@eland.co.nz]
Sent: Wednesday, August 14, 2019 12:05 PM
To: Steve Rice
Subject: papers for Commissioner Ryder
Attachments: science support of riparian setbacks between DoC and BOPRC Sept to Nov 2011.docx; Informal literature review of papers potentially relevant to riparian setbacks.docx

Categories: Attention

Hi Steve

Commissioner Ryder asked for science support for the statement that I made in the Timberlands rebuttal.

I have attached:

- an email discussion I had with Claire Graham at the time we were developing the NES for plantation forestry, as it refers to the thesis that DoC rely heavily on for their position at that time and in this hearing (CSSI analysis of sediment in the Whangapoua Harbour). CSSI has since not proven to be a plausible indicator of sediment source, however, even if it was, it is unable to discern which part of the landscape the sediment was derived from.
- An informal meta-analysis of papers I collated in 2016 for the NES. The purpose of that original collation was to find papers assessing the effects of woody debris in streams and how that affected native fish habitat. Papers relevant to that study are coloured green in column 3. Repurposing that 2016 collation to see which papers are relevant for the effect of riparian width, I have colour coded what I see as the most relevant in orange in column 1. I have also highlighted what I see as key text in yellow.
Should Commissioner Ryder want the full papers referred to I can send them through, but thought he might want to choose the most appropriate ones rather than me sending through the lot.

Work by Landcare Research which endeavours to quantify sources identifies that the mass movement delivery (midslope failure or debris avalanche-type) is not stopped by riparian buffers. Adding 5, 10, 20 or even 50 metres won't stop these reaching a stream.

A stable bank edge does reduce erosion, thus a width that supports the retention of a stable bank edge is important.

I have put the call out to my forestry colleagues to see whether there are more (or more relevant) papers than the ones I have already sent. If so, I'll forward those too.

Regards
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