## Response from Dr Stewart Ledgard

During my evidence I was asked about several practices and whether they were included in OVERSEER. One of these was – "Is direct animal access to streams/waterways an option in the model" – and my reply was that I didn't think so (in fact I think I said I was almost certain it was not included!).

Well – I checked on this, as I stated at the Hearing that I would, and in fact THERE IS AN OPTION IN OVERSEER where the user can tick a box for Animal-water connectivity which refers to dairy or beef cattle having access to streams or stream banks. When this is ticked it provides a small increase in N leaching/runoff at the farm scale and a relatively larger increase in P loss. Attached is a Screen shot of the page where it can be selected.

I apologise for this in not remembering its presence in the model. I don't think I have ever used it before but I do recall it is based on a couple of research studies specifically on the effects of cattle access on increased nutrient losses.

