

To: Will Nicolson, LandPro

From: Richard Allibone, Water Ways Consulting Ltd

Date: 23 June 2020

**Subject: Bendigo Creek – Brown trout effects**

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Dear Will,

I have read the Notification consideration for deemed permit replacement water permit for the Bendigo Creek water take application (RM20.079.01 and RM20.079.02) and note that the Fish & game are considered an effected party due to my assessment that there are minor effects on the brown trout population in Bendigo Creek.

Given this decision regarding notification I thought it would be worthwhile clarifying my assessment of the level of effect on brown trout. Firstly, this is a scale dependent effect. My assessment concluded that the brown trout population is functionally separate from any other brown trout population that is present in Lake Dunstan and the wider Clutha River catchment. The drying reach downstream of the fishing sampling location I conducted prevents movement upstream into Bendigo Creek or downstream from Bendigo Creek aside for during high flow events when the intermittent/ephemeral reach of Bendigo Creek is wetted. Therefore, the assessment of effect was based on the assessing the effect on the brown trout population in the short section of Bendigo Creek from the drying reach upstream to the barrier section downstream of the intake. I would estimate that from the reach LandPro (Site 4 gauging study Consent application) found the stream to be dry upstream to the likely position of the waterfall barrier is approximately 2 km. The assessment of effects was therefore based on the change in habitat along this 2 km reach. Within this 2 km reach it was my assessment that there would be a reduction in available habitat due to the water take and the brown trout population would be reduced by a minor amount. Given there is no sports fishery in Bendigo Creek the effect remains as a minor effect, on a very small brown trout population due to the reduction in habitat.

If I had based the assessment of effects on the larger scale of the brown trout sports fishery of the upper Clutha area the effect would have non-existent as the Bendigo Creek brown trout population will make no contribution to the sports fishery.

### **Summary**

The finding of a minor effect on brown trout is scale dependent and also reflects my treatment of the brown trout population as a small of closed population. If I was required to assess the effect on the brown trout sports fishery value then the assessment of effects would conclude there is no effect.

If you have queries regarding this assessment please contact Richard Allibone by phone 03-4544849, 021 904950 or by email at [waterwayscon@gmail.com](mailto:waterwayscon@gmail.com).

Regards

A handwritten signature in blue ink, appearing to read 'R. Allibone', is positioned above the printed name.

Richard Allibone