



**MT. COOK  
ALPINE  
SALMON**

# WATER TESTING NOVEMBER 2011

## COMMENTARY BY PROFESSOR TERRY BRADLEY

“The ammonia nitrogen output from the salmon farms in the Mackenzie District, and in particular MCAS, has always been extremely low and continues to be so. The levels above and below the farm are identical providing definitive evidence for an absence of environmental degradation/impact related to salmon farms. The most recent assays of ammonia nitrogen, as illustrated on this map, support this conclusion. Of the sites that are currently being monitored by MCAS the only one that shows an elevated level of ammonia nitrogen is Kelland Ponds (11). The nitrogen found here is likely related to terrestrial farming in the immediate vicinity and could increase once seasonal irrigation is initiated; this bears watching.

The contention that weed growth in the canals is the result of salmon farming is without evidence. Weed growth is normal in all bodies of water. Indeed, weeds were present in the canals and drainage prior to the initiation of salmon farming. Although nitrogen and phosphorous are required for growth of weeds in the low nitrogen environment of the canals, light penetration (which is largely regulated by water turbidity) is likely a much more significant factor in the fluctuation in weed growth.

A full set of data will be available from next month.”

## MONTHLY WATER TESTING RESULTS

Water Testing Sites	#	Total Ammonia Nitrate	Biological Oxygen Demand	Phosphorus	Nitrate Nitrogen
Tekapo Canal Farm (upstream)	1	<0.01	<3	0.009	0.02
Tekapo Canal Farm (immediately below)	2	<0.01	<3	0.009	0.02
Tekapo Canal Farm (downstream)	3	<0.01	<3	0.012	0.03
Ochau Canal farm (Upstream)	4	<0.01	-	0.008	-
Ochau Confluence (immediately below farm)	6	<0.01	-	0.007	-
Pukaki Canal Contributory (above confluence)	7	-	-	-	-
Ochau A Powerstation (downstream)	8	<0.01	-	0.012	-
Ruataniwha Farm (upstream)	9	<0.01	-	0.008	-
Ruataniwha Farm (immediately below)	10	<0.01	-	0.007	-
Kelland ponds (contributory)	11	0.02	-	0.009	-
Wairepo Arm (contributory)	12	-	-	-	-
Ochau B Powerstation (downstream of farm)	13	<0.01	-	0.007	-
Benmore Salmon Farm	14	-	-	-	-
Ochau C Powerstation	15	-	-	-	-

