

## **9. SPECIAL MANAGEMENT AREA: LAKE BRUNNER/KOTUKU-WHAKAOHO CATCHMENT**

### **9.1 Introduction**

Lake Brunner/Kötuku Whakaoho is the largest lake in the West Coast region, at 36.1 km<sup>2</sup>. The Lake Brunner/Kötuku-Whakaoho catchment is a special management area as it has values associated with fishery and tourism, is an important recreational resource, is prized highly by tangata whenua and is an important area ecologically. Swimming, fishing, and boating are popular recreational activities on the lake in the summer months.

The catchment provides feeding, roosting and breeding habitat for a diverse range of waterfowl and wading birds. Land-locked populations of koaro, banded and giant kokopu, common bully, upland bully and dwarf galaxiid are present. Poutini Ngäi Tahu value many of the native bird and plant species as taonga.

Lake Brunner/Kötuku-Whakaoho is considered the most vulnerable lake on the West Coast due to high development pressure and high recreational use. Land use in the catchment includes farming (20-25% of the catchment), forestry, recreational use, and residential and tourism development.

Lake Brunner/Kötuku-Whakaoho is of immense significance to Poutini Ngäi Tahu as recognised by its inclusion as a statutory acknowledgement area in the Ngäi Tahu Claims Settlement Act. Kötuku-Whakaoho holds an important place in Poutini Ngäi Tahu history as the site of the tribe's battle with Ngäti Wairaki. Victory in this battle saw Poutini Ngäi Tahu gain manawhenua in the area. Besides being a famous battleground, Kötuku-Whakaoho was important as the site of a permanent settlement, acting as a focal point for food-gathering parties. Kötuku-Whakaoho is also recognised as being a major mahinga kai and a key stopover point for early travellers.

When managing the catchment consideration must be given to the whole Plan, including other objectives and policies and methods as appropriate.

### **9.2 Objectives**

#### **9.2.1 To improve the water quality of Lake Brunner by managing the adverse effects of activities in the catchment to reach an average trophic level index of 2.8 by 2020, and then maintain or enhance this trophic level index.**

##### Explanation

The Lake Brunner catchment water bodies support a range of natural and human use values. Water quality in the lake and its tributaries has been declining. The Council wishes to reverse this decline and achieve water quality enhancement to 2004 levels, and where possible higher.

#### **9.2.2 To avoid, remedy, or mitigate adverse effects on aquatic ecosystems, cultural values, and contact recreation in the Lake Brunner/Kötuku-Whakaoho catchment.**

##### Explanation

Aquatic ecosystems and contact recreation are highly valued in the catchment and any effects on these values need to be appropriately managed.

### **9.3 Policies**

**Note:** Chapter 3 and Chapter 8 Policies, as relevant, apply to discharges in this catchment in addition to the Chapter 9 Policies.

**9.3.1 The Council will manage Schedule 9 swimming areas in the Lake Brunner catchment for contact recreation purposes (Class CR) and all other surface water in the catchment for aquatic ecosystem purposes (Class AE).**

Explanation

The water quality standards for aquatic ecosystems and contact recreation are set out in the third schedule of the RMA. The aquatic ecosystem standard will be used across the catchment while the contact recreation standard will be used for particular areas identified in Schedule 9.

**9.3.2 To have regard to the cumulative effects of discharges of contaminants and the assimilative capacity of Lake Brunner/Kotuku-Whakaoho.**

Explanation

Discharges in the Lake Brunner catchment can exceed the capacity of the sensitive lake ecosystem to assimilate the combined nutrient input from all tributaries. When considering applications for resource consents, the cumulative effect of all other nutrient inputs into the catchment will be considered. The Council is currently undertaking studies to establish the likely assimilative capacity of the lake.

**9.3.3 To reduce the loss of phosphorus to water in the Lake Brunner catchment.**

Explanation

Phosphorus is the limiting nutrient in Lake Brunner. Reducing discharges of phosphorus to the lake, or its catchment, will result in improved water quality in the lake over time. Discharges of phosphorus can result from discharges of dairy effluent, the use of phosphorus based fertiliser, and stock access to waterways.

**9.3.4 To require discharges of dairy effluent in the Lake Brunner catchment to be to land, rather than directly to water.**

Explanation

The direct discharge of dairy effluent to water is not considered appropriate in the Lake Brunner catchment. Existing consents for discharge to water, or discharge to land where it may enter water (including consents for stand off pads), will be reviewed by 1 July 2013 with requirements for discharges to land as opposed to water, taking into account the need to reduce the level of phosphorus entering the lake. Appropriate effluent storage will be required for any system. Low application systems are likely to be required in this catchment.

**9.3.5 To prevent stock access to waterways.**

Explanation

Preventing stock access to waterways ensures that stock are not defecating directly into water or causing pugging and erosion to the banks of the waterways. Preventing stock access is likely to require the fencing of waterway margins and the bridging or culverting of stock crossings. There may be some instances where the number of stock and frequency of crossing is such that expensive infrastructure is unwarranted. For these individual cases, landowners can apply for consent where the effects of their activities can be assessed and managed in the most appropriate way.

**9.3.6 To reduce the loss of phosphorus to Lake Brunner associated with the development of land, by managing phosphate fertiliser use in the catchment so that no net increases in annual loss occurs per property.**

Explanation

The development of new land in the catchment usually requires high application rates of phosphorus fertiliser to raise soil fertility. This increases the potential phosphorus loss from this land to the Lake. In order to limit potential losses of phosphorus to the Lake, future phosphorus use should not exceed past phosphorus use per property.

**9.3.7 To encourage methods of wintering of stock that will reduce the risk of phosphorus loss in the Lake Brunner catchment, including the management of effluent that results from wintering methods.**

Explanation

Wintering stock outside the lake catchment avoids potential discharges of phosphorus from excreta deposited onto standoff pads or paddocks during winter. Alternatively, using collection and containment methods such as herd homes allows for better management of effluent compared to standard management practices.

**9.4 Methods**

In order to give effect to the policies relating to the Lake Brunner catchment, the Council will use the following methods in addition to other methods in this and other Plans:

**9.4.1 To encourage the development and implementation of codes of practice and environmental management systems.**

The Council will encourage and assist community, recreational and industry groups in the Lake Brunner catchment to prepare codes of practice and environmental management systems for land and water use activities, in order to avoid, remedy or mitigate adverse effects on water. This may involve identifying how land use activities can be carried out in ways which minimise non-point source contamination.

**9.4.2 To promote and encourage the rehabilitation of river and lake edges in reaches where water quality may be enhanced as a result.**

The Council will identify those parts of wetlands, lakes and rivers in the Lake Brunner catchment where water quality has been degraded by land use activities. Whilst this Plan does not regulate land use activities, this method is designed to promote integrated management of non point source discharges from land use activities. Identifying degraded areas will enable the appropriate management response to occur.

**9.4.3 To promote and encourage land use practices that maintain and/or enhance water quality.**

Land use significantly influences the water quality in the catchment, and hence the catchment needs to be managed in an integrated way. This includes management of land use through the Grey District Plan.

**9.4.4 To place a priority on taking enforcement action in the Lake Brunner catchment, and particularly in relation to any activities that do not comply with this plan or resource consent conditions.**

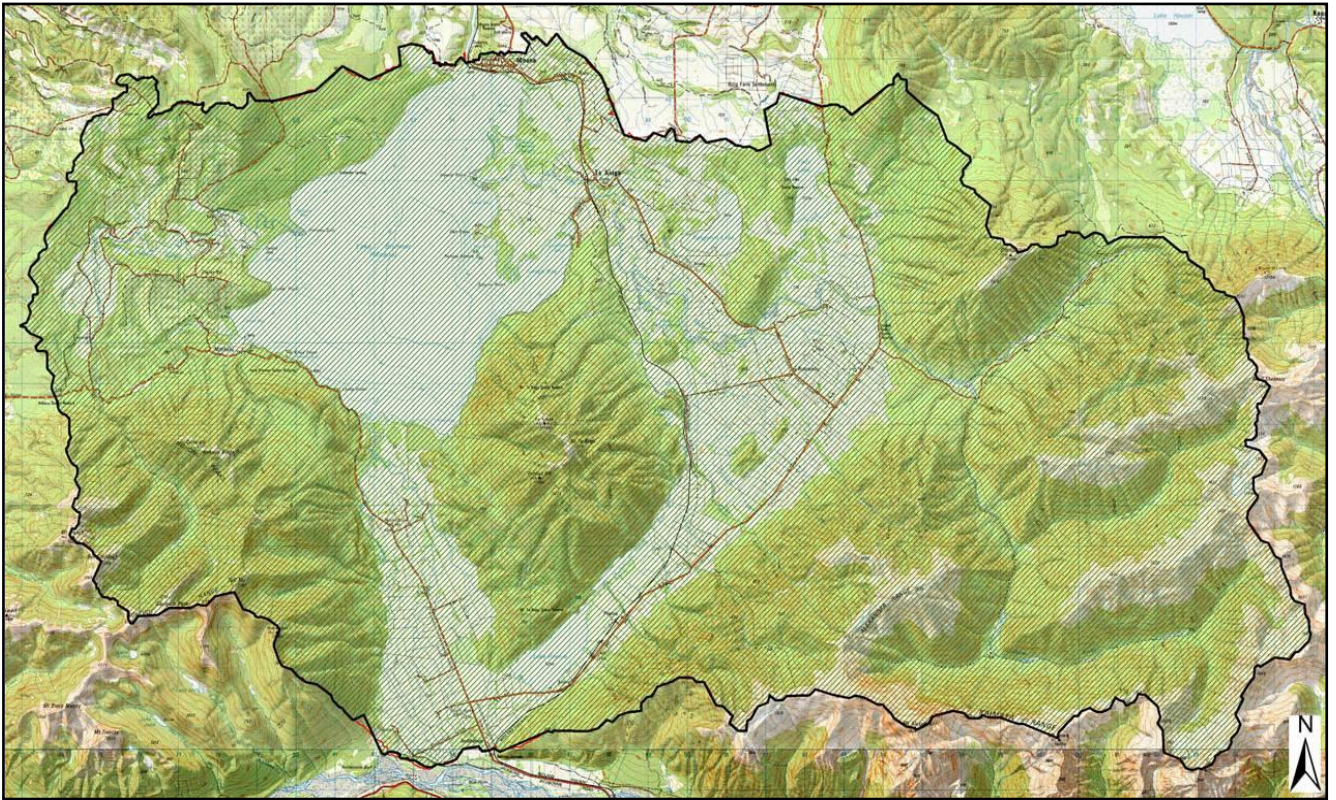
**9.4.5 To review all existing farm dairy effluent discharge consents in the Lake Brunner catchment by July 2013, to ensure the best practicable option is adopted to reduce or remove any adverse effects on the lake environment, by minimising phosphorous losses to waterbodies.**

Section 128 of the RMA sets out the process for the review of resource consents. Policy 9.3.3 requires a reduction in the amount of phosphorus discharged in the Lake Brunner catchment, in order to improve water quality in the lake over time. Direct discharges of phosphorus occur through discharges of dairy effluent. Policy 9.3.4 requires discharges of dairy effluent in the Lake Brunner catchment be to land, rather than directly to water. Existing discharge to water consents will be reviewed by 1 July 2013 with requirements for discharges to land as opposed to water, given the need to reduce the level of phosphorus entering the lake. Appropriate effluent storage will be required for any system. Low application systems are likely to be required in this catchment.

**9.4.6 Encourage the implementation of Nutrient Management Plans and Farm Plans to address best practice on individual farms to reduce effects on Lake Brunner.**

In 2005 Landcare Trust funded the development of individual Farm Plans with land owners in the Lake Brunner catchment. The Farm Plans identified areas that farming practices could be improved with both environmental and financial benefits. Consequently many farms in the catchment improved their management practices which included the fencing and bridging of waterways, and nutrient management. There are now new land owners in the catchment and changes in policy for the area, therefore a review of these Plans would provide new opportunities for adoption of best practice.

**Map of the Lake Brunner Catchment**



**Note:** Cadastral boundaries in the Lake Brunner catchment can be viewed in more detail on the Council website: [www.wcrc.govt.nz/Resources/Images/brunnerscatchment.jpg](http://www.wcrc.govt.nz/Resources/Images/brunnerscatchment.jpg)

