

MAW_13 – Lake Hochstetter (500.9664 ha)

Protected Area(s)	Area (ha)	NaPALIS #	# of Primary Parcels
Conservation Area - Lake Hochstetter	500.9664	2806572	1

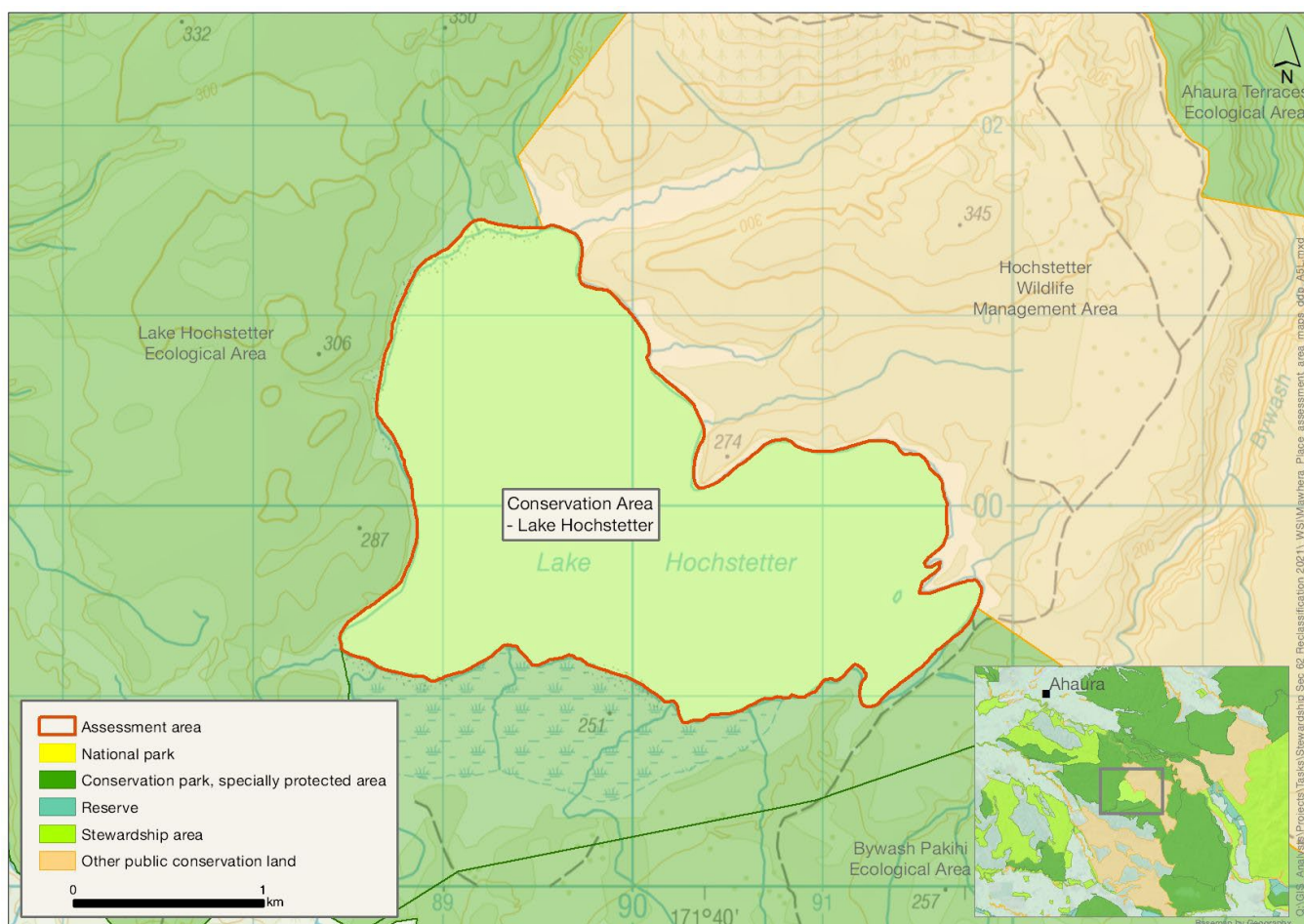
Location

Lake Hochstetter south-west of Ahaura and north-east of Lake Brunner.

Brief Description

The conservation area covers the waterbody and some lake edge habitat surrounded by ecologically valuable conservation land. The lake itself is one of a network of fluvio-glacial lakes in the region. It is historically important as one of the largest dam projects of the 1870s, funded through the Vogel Government's development programme, and some heritage equipment remains. Access is not easy and there are no facilities, but boat access and trout fishing occur.

Map



Ngāi Tahu Values and Interests

Mo tātou, a, mo ka uri, a muri ake nei – for us and our children after us

From the preliminary desk top assessments, there do not appear to be any site specific Ngāi Tahu values identified. However, there is a deep connection between Ngāi Tahu and all of the whenua in the Ngāi Tahu takiwā, and the absence of site specific values in the preliminary analysis does not detract from that connection, nor does it confirm that site specific values are not present. Further, a section 4 Conservation Act and Te Tiriti principles perspective is required as well, and it may be that areas of land are significant to Ngāi Tahu from that broader perspective. To avoid doubt, nothing in the proposed classification affects, limits or derogates from the rangatiratanga of Ngāi Tahu over its takiwā, including in relation to freshwater; and/or any other rights or interests Ngāi Tahu may have.

Ecological Values

Representativeness

A forested catchment with intact wetlands on two of the margins, and a high degree of naturalness and representativeness. Lake Hochstetter appears to be unmodified lake system with a very high degree of naturalness. It is a good representative example of a fluvio-glacial lake, characteristic of this type of New Zealand lake and part of a system of similar lakes (Brunner, Ahaura, Haupiri, Kangaroo) that form a large complex. It is surrounded by public conservation land with high ecological values, including one of the most extensive and intact areas of pākihi wetland in the country. Those wetlands are listed in Schedule 2 of the Regional Plan for that reason. The lake is included in the Directory of New Zealand wetlands.

Diversity and pattern

The only records of freshwater fish within the lake are unidentified bullies, but it is a pristine lacustrine ecosystem with no pest fish or no invasive weeds and is surrounded by forest cover over a number of incoming streams that support a diversity of freshwater species.

Rarity and distinctiveness

A high level of rarity and distinctiveness as an ecosystem – glacial origin lake with forested catchment and surrounded by forest and wetlands (threatened ecosystems and Acutely Threatened land environment). No at-risk or threatened terrestrial species are recorded on BioWeb, but it is predicted that the area would be important for freshwater species and wetland birds.

In streams that flow into the lake there are records of giant kōkopu (*Galaxias argenteus*), longfin eel (*Anguilla dieffenbachii*), kōaro (*Galaxias brevipinnis*) (all At Risk: Declining), kōura (freshwater crayfish, *Paranephrops planifrons*), banded kōkopu (*Galaxias fasciatus*) and shortfin eel (*Anguilla australis*) (all Not Threatened). The lake is likely to offer spawning habitat for kōaro and giant kōkopu if these species have evolved to become non-diadromous populations (i.e. they don't need to migrate to the sea for different life stages). Stout native milefoil (*Myriophyllum robustum*) (At Risk: Declining) has been recorded in the lake along with two threatened aquatic bird species – Australasian crested grebe (kāmāna, *Podiceps cristatus*) (Nationally Vulnerable) and fernbird (mātātā, *Bowdleria punctata*) (At Risk: Declining).

Ecological context

The conservation area covers the waterbody and some lake edge habitat surrounded by ecologically valuable conservation land: Lake Hochstetter Ecological Area and Wildlife Management Area, and the extensive (>5000

ha) pākihi wetlands within Bywash Pākihi Ecological Area. The lake itself is one of a network of fluvio-glacial lakes in the region. Surrounding the lake is a mosaic of forest and intact wetland habitats that provide habitat for a range of threatened wetland specialist species. It is part of the Hochstetter Ecological Management Unit, which is both dense conifer and conifer-broadleaved-beech forests on glacial outwash gravels, with local granite in south; extensive pākihi and Lake Hochstetter; some logging modification.

Recreation Values

Setting

This lake is in a Backcountry-remote zone, with no facilities in this area.

Visitor type and activities typically undertaken

May get occasional boat use and trout fishing but access is not easy.

Access

The area is relatively isolated. Access is via the Nelson Creek and the gravel Lake Hochstetter access road, but there is no direct vehicle access.

Heritage Values

Historical overview

The current boundary of the conservation area represents the likely natural extent of Lake Hochstetter. However, in the 1870s it was the site of one of the largest dam projects of the period, funded through the Vogel Government's development programme. With its associated water race, among the largest and longest on the West Coast, the dam was designed by some of the country's finest engineers and supplied water to a major goldfield. The dam retained the lake waters for three quarters of a century, supplying a second race in the early 1900s and serving the timber industry in the 1920s and 1930s. It was only through a deliberate breach of the dam in the 1950s by a local resident looking to improve deer hunting in the area that the lake was able to retreat to its original extent.

Sites recorded

None, but four actively managed pieces of equipment associated with the dam and water control to the southwest of the area are intimately tied to the history of the lake: the pug mill, concrete spillway, Hochstetter puddled clay core dam, and the dam control gates.

Heritage values

As a major part of the Vogel Government Think Big scheme, the dam was part of one of the most rapid development phases of the 19th century.

The puddled clay core dam used to hold back the lake waters (albeit outside of the conservation area) may well have been the first of its type built for mining in New Zealand.

Permissions summary

N/A

Map (aerial photo)

