

HOK_37 – Lake Arthur (111.6989 ha)

Protected Area(s)	Area (ha)	NaPALIS #	# of Primary Parcels
Conservation Area - Lake Arthur	69.11	2805708	4
Conservation Area - Lake Arthur	42.5889	2805709	4

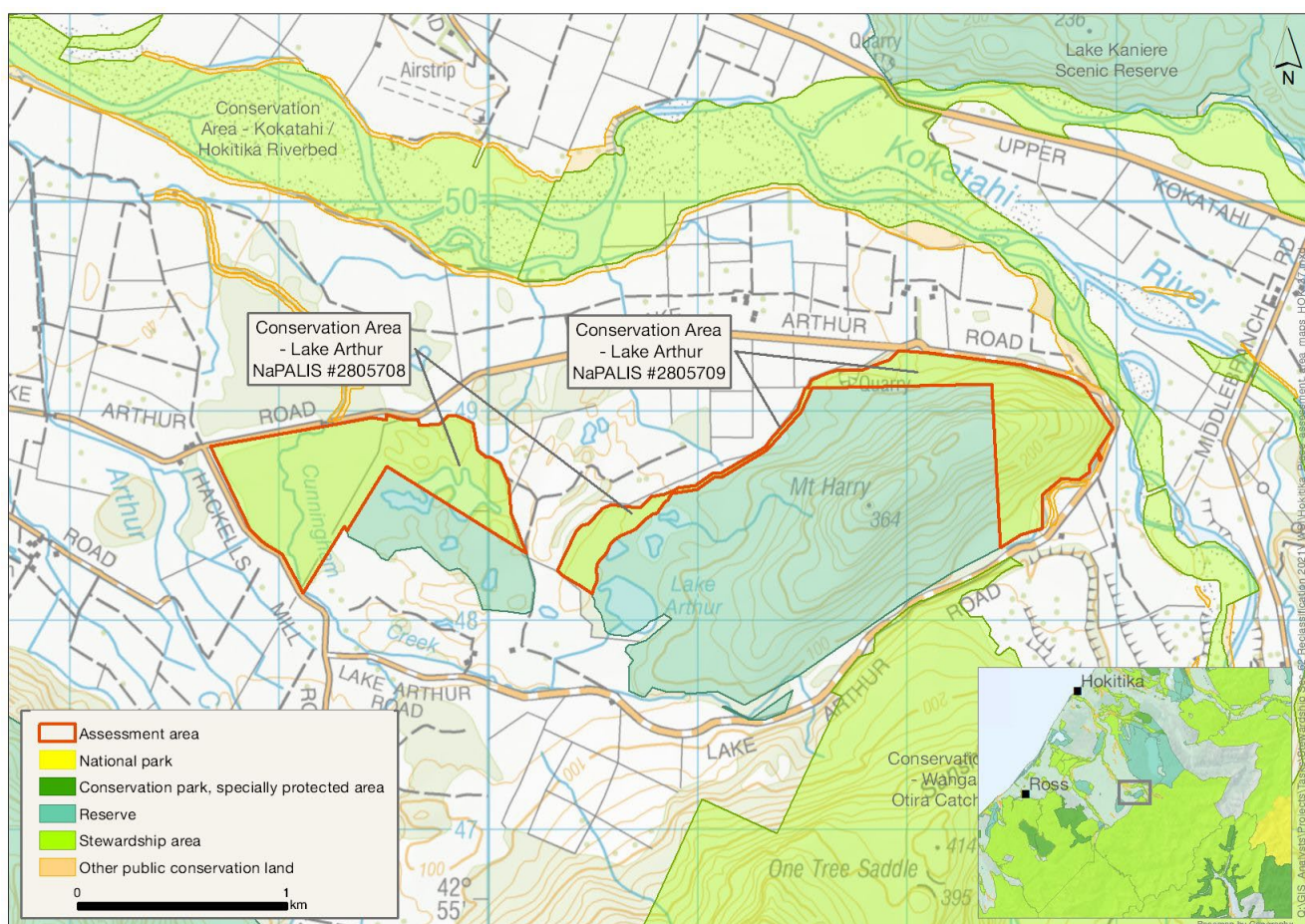
Location

Southwest of Lake Kaniere.

Brief Description

These two conservation areas straddle the Hokitika and Whitcombe ecological districts. Their distinctive and unusual mosaic of small lakes, wetlands, and stream reaches provides a diverse range of habitats for different life stages of many fish. Both areas are adjacent to additional public conservation land, including Lake Arthur Scenic Reserve. There are no tracks or facilities located in these areas, and they are likely to receive little recreation use apart from the occasional local hunter. No heritage values, or permissions, are recorded.

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

The assessment area comprises two separate areas that lie between the Hokitika and Kokatahi rivers and straddle the boundary between the Hokitika and Whitcombe ecological districts. The area is contiguous with Lake Arthur Scenic Reserve and comprises of indigenous forest and shrublands, rolling moraines, kettlehole tarns and lakes. The Hokitika ecological district is characterised by the glacial surfaces, beech-free forests, and the elements of the flora that are at their southern distribution limits, i.e., northern rātā (*Metrosideros robusta*) and kānuka (*Kunzea serotina*) (McEwan, 1987) (Copied from Jane Marshall report for Lake Arthur Scenic Reserve).

Representativeness

The areas include indigenous forest, wetlands and lakes. The western area consists of rolling moraines, kettlehole wetlands and lakes, while the eastern area, which lies at the base of Mt Harry, supports vegetation that is not well represented in conservation land, in this ecological district. The landform of the western area is itself unique as it has the appearance of rolling moraine with numerous kettlehole tarns, but this is likely to be the result of a massive landslide from the Alpine Fault (Wardle, 1980).

Both areas provide additional forested habitat to the Lake Arthur Scenic Reserve, with contiguous indigenous forest and wetland vegetation. The forest is mature old-growth forest, with shorter shrublands present around the edges of the wetlands and lakes. Wetland and lake ecosystems will provide protected habitat for cryptic wetland bird species, lizards, invertebrates and native fish.

The presence of old-growth native podocarp (*Podocarpaceae* and *Phyllocladaceae*) forests, open water and wetland habitats, provides habitat for a diversity of indigenous fauna species. This includes shy wetland and forest birds, giant kōkopu (*Galaxias argenteus*), and longfin (*Anguilla dieffenbachii*) and shortfin eels (*Anguilla australis*) recorded from the site.

Although the Cunningham Creek area is largely surrounded by private land, it is contiguous with Lake Arthur Scenic Reserve, and covers reaches of Cunningham Creek that have a high predicted water quality and high naturalness. There is a registered wetland here, which forms a mosaic with small lakes and Cunningham Creek that collectively form an important habitat for giant kōkopu.

The Lake Arthur area is similar to the Cunningham Creek one but does not cover the same diversity of freshwater ecosystems/habitat variety.

Diversity and pattern

The assessment area consists of fragmented forest and wetland ecosystems. Wetlands (pākihi and bogs) were once extensive here and are now severely reduced. The eastern area appears to have less intact forest community, with areas of shrubland and tree ferns, where the western area has a more diverse podocarp forest. These two areas will provide habitat to a range of indigenous species, and provide a forested corridor for species moving through the highly modified and fragmented landscape.

Multiple records from these areas reveal a high diversity of native fish and invertebrates: giant kokopu, bluegill bully (*Gobiomorphus hubbsi*), longfin eel, torrentfish (piripiripōhatu, *Cheimarrichthys fosteri*), kōura (freshwater crayfish, *Paranephrops planifrons*), redfin bully (*Gobiomorphus huttoni*), common bully (*Gobiomorphus cotidianus*), dwarf galaxias (*Galaxias divergens*), shortfin eel, freshwater shrimp (*Paratya*) and trout.

Rarity and distinctiveness

There are no at-risk or threatened species recorded here, but threatened ecosystems such as kettlehole wetlands are present in the western area. The land environment classification consists mostly of Less Reduced and Better Protected, and At Risk Land.

These areas harbour a high diversity of freshwater habitats, including these native fish and invertebrates: longfin eel, dwarf galaxias, bluegill bully, torrentfish, kōkopu, redfin bully (all At Risk: Declining) and common bully, shortfin eel, kōura, trout and freshwater shrimp. This site is notable for the habitat that it appears to provide for giant kōkopu. The distinctive and unusual mosaic of small lakes, wetlands, and stream reaches will provide a diverse range of habitats and for different life stages of many fish.

Ecological context

The area straddles the Hokitika and Whitcombe ecological districts and comprises indigenous forest, wetlands and lakes. Both conservation areas adjoin Lake Arthur Scenic Reserve. They are divided by a sliver of private land. Indigenous forest is contiguous between the areas and the scenic reserve, reducing edge effect and protecting the core forest and wetland habitat, while providing additional habitat for fauna. The area may play an important role as a forested “island” or stepping stone within a highly fragmented landscape, and enable the movement of species.

Although surrounded predominantly by private land, the freshwater ecological value of the mosaic of wetlands, streams and lakes is very high. There is a marginal strip with a healthy buffer of riparian vegetation (for approximately 500 m) between the Cunningham Creek area and Hokitika River. This will provide critical cover for giant kōkopu adults. This area does not have the same degree of freshwater ecological value as the other – there is not the same range of freshwater habitats – but it is contiguous with the Lake Arthur Scenic Reserve.

Recreation Values

Setting

These areas are in a backcountry-remote zone. There are no tracks or facilities located in these areas.

Visitor type and activities typically undertaken

These areas are likely to receive little recreation use. Occasional local hunter.

Access

Access from Lake Arthur Road.

Heritage Values

Historical overview

No historic sites or heritage values recorded.

Permissions Summary

N/A

Map (aerial photo)

