

# HOK\_21 – Hokitika, Kokatahi, Toaroha and Styx Riverbeds (2417.9238 ha)

Protected Area(s)	Area (ha)	NaPALIS #	# of Primary Parcels
Conservation Area - Kokatahi / Hokitika Riverbed	2219.3548	2805690	18
Conservation Area - Kokatahi River	3.0097	2805720	2
Conservation Area - Styx River	46.412	2805710	4
Conservation Area - Toaroha Riverbed	149.1473	2805711	2

## Location

This series of conservation areas follows Hokitika River and its main tributaries the Kokatahi, Styx and Toaroha rivers from near where the rivers break out of the hills to the Hokitika rivermouth.

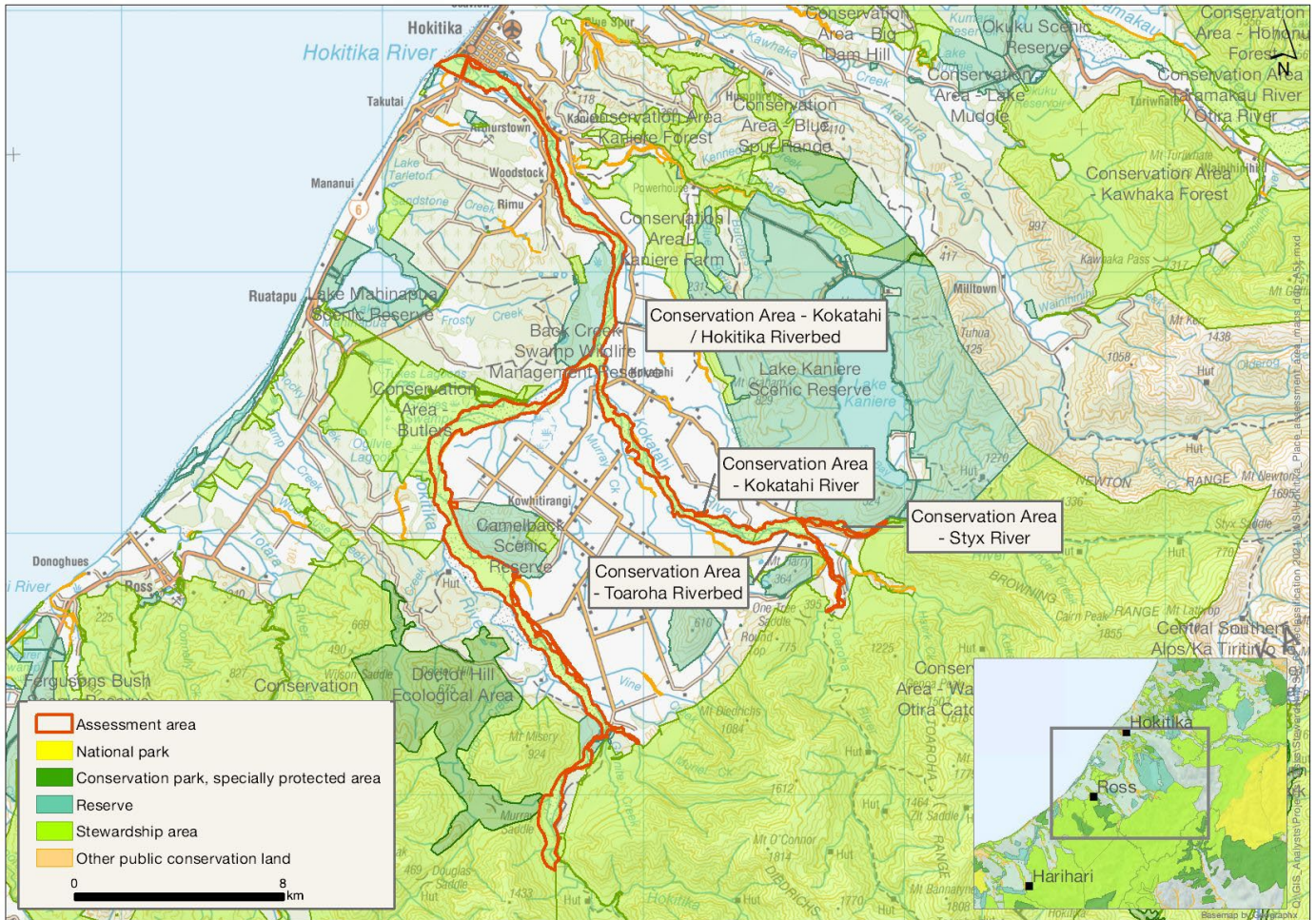
## Brief Description

This area follows an enormous length (>50 km) of riverine habitat of Hokitika River across the entire plain, from the base of Mt Misery to the Tasman Sea. These areas are primarily braided riverbed with some wetlands, riparian forest shrubland and cleared areas used for grazing. The highly diverse and dynamic series of different habitats provides opportunities to support an abundance of flora and fauna.

The area is important to Ngāi Tahu for historical reasons and as a Pounamu Management Area. There is goldmining history around the role of the port at Hokitika. Many diverse permissions are in place over this large area.

The river is used by kayakers, whitebaiters, fishers and occasional jetboaters. These areas at the start of the Styx, Kokatahi, Toaroha and Whitcombe valleys tramping tracks are used by backcountry adventurers, including trampers, hunters and kayakers. Hokitika Gorge is a popular short walk destination.

# Map



## Ngāi Tahu Values and Interests

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

There is a deep connection between Ngāi Tahu and all of the whenua in the Ngāi Tahu takiwā. A section 4 Conservation Act and Te Tiriti principles perspective is required, 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.

Throughout the Kokatahi/Hokitika Riverbed, there are well-worn trails, these being highways of old Poutini Ngāi Tahu.

The Kokatahi Riverbed has a place in Poutini Ngāi Tahu history, being alongside the Pukehika Pā site at the confluence of the Hokitika River.

The Toaroha catchment is a Pounamu Management Area.

# Ecological Values

## Representativeness

This assessment area encompasses (most of) the entire lower (<100 m above sea level) length of Hokitika River below the Bluff Creek confluence. It also includes large parts of the Kokatahi, Toaroha and Styx riverbeds. The vegetation associated with these riverbeds and riparian habitats is diverse, with varying amounts of indigenous cover. Overall and despite increasing modification towards the coast, the plant communities are highly representative of their ecosystems in the Hokitika (and Whitcombe) ecological districts. Remaining unmodified forest cover associated with recent alluvial flats is estimated to have been reduced by 99% in the ecological district, so any areas of forest left adjoining Hokitika River on flats is highly significant and representative of former or 'natural' vegetation.

This area follows an enormous length (>50 km) of riverine habitat of Hokitika River across the entire plain, from the base of Mt Misery to the Tasman Sea. Extensive marsh/swamp wetland historically covered the valley flat and the remnants are identified as significant (included in schedules of the Regional Plan). This braided river system is an 'acutely threatened' environment. Much of Hokitika River's meandering length is impacted by intensive dairy farming, the predominant land use on the flats. This degrades the naturalness level of this area, although the predicted water quality is good. The lower part is tidal river mouth and a popular whitebaiting area.

This assessment area also covers the Kokatahi braided river from the point of confluence of the Styx/Toaroha/Kokatahi on the flats to its confluence with Hokitika River. Kokatahi River is an 'acutely threatened' environment. This stretch of the river has a low level of naturalness, due to how intensively farmed and modified the land is, although the predicted water quality is good. The Styx and Toaroha areas are similar in that they cover the riverine habitat of similar sized rivers with similarly highly natural (upstream) catchments. Predicted water quality is high, but the level of naturalness is low, especially for the Toaroha area. Both rivers begin to form a braided morphology and flow predominantly through pastoral farmland. The riparian vegetation buffer appears pretty sparse along much of the length of these places.

## Diversity and pattern

This assessment area consists of braided riverbed(s), wetlands, grass- and sedgeland, shrublands and forests as the (predominantly) indigenous plant communities. There are also large areas of farmland and regenerating secondary shrublands on the surrounding historic/flood terraces. Each of these ecosystems provides a diverse series of habitat gradients, either in terms of distance from the main channels (inundation, frequent flooding and very high disturbance) or between each plant community. There is also a further disturbance gradient associated with the degree of protection surrounding the river, i.e. the upper reaches are completely within other conservation land, but the lower reaches are completely removed from it.

This highly diverse and dynamic series of different habitats provides opportunities to support an abundance of flora and fauna.

There are numerous freshwater records within this catchment, from inside the area boundaries, and within the feeding tributaries. A very high diversity has been recorded: lamprey (kanakana, *Geotria australis*), dwarf galaxias (*Galaxias divergens*), shortjaw kōkopu (*Galaxias postvectis*), giant kōkopu (*Galaxias argenteus*), bluegill bully (*Gobiomorphus hubbsi*), longfin eel (*Anguilla dieffenbachii*), torrentfish (piripiripōhatu, *Cheimarrichthys fosteri*), banded kōkopu (*Galaxias fasciatus*), kōaro (*Galaxias brevipinnis*), kōura (freshwater crayfish, *Paranephrops planifrons*), freshwater shrimp (*Paratya*), kākahi (freshwater mussel, *Hyridella menziesi*), redfin bully (*Gobiomorphus huttoni*) common bully (*Gobiomorphus cotidianus*) and trout.

It is also likely that this area provides habitat for brown mudfish (*Neochanna apoda*). Common smelt (*Retropinna retropinna*) are recorded near the mouth, as were grayling (*Prototroctes oxyrhynchus*) (1923). This

collectively represents a very high level of species diversity within these reaches. Not all of the migratory galaxias will use the main stem as adult habitat, but will be at least passing through to reach suitable habitat in tributes or upstream.

## **Rarity and distinctiveness**

The site contains braided rivers, a naturally rare and threatened ecosystem. Riverbeds are not assessed using the Threatened Land Environment status, but for the surrounding riparian environment most of the assessment area is listed as: At Risk (20–30% indigenous cover remaining).

Numerous records from the Styx, Toaroha and Kokatahi rivers, within the area boundaries, and within feeding tributaries, show the presence of the following species: lamprey (Nationally Vulnerable, 1979 record), shortjaw kōkopu (Nationally Vulnerable) and dwarf galaxias, kōaro, giant kokopu, longfin eel, torrentfish and bluegill bully (all At Risk: Declining), and common and redfin bully, kōura and trout. It is likely that this parcel provides habitat for brown mudfish (At Risk: Declining) and banded kōkopu.

The Hokitika River catchment is a hotspot for native fish and invertebrate diversity. This includes being an important site for whitebait diversity as the areas contain populations of four whitebait species. This area, at the mouth of Hokitika River, also has registered inanga spawning sites. These river reaches provide habitat and/or passage for a high diversity of native freshwater fish. There are many threatened species of conservation concern that will use this riverine habitat.

## **Ecological context**

The area includes or is adjacent to Hokitika River mouth, Back Creek Swamp, and Groves Swamp ecological management units, and Kokatahi–Styx Species Management Unit.

Modifying factors include large areas of terrestrial habitat on old braided river islands and/or well above the permanent banks of the river that are being farmed, sometimes intensively. Impacts associated with these activities include extensive areas of 4WD roads, intensively managed pasture and associated infrastructure/management, such as fencing, fertiliser, grazing and silage mounds. Effects of stock, particularly high concentrations of dairy cows and/or the fertiliser application required to maintain improved pasture, will be having a localised but substantial negative effect on water quality and soil biodiversity.

The very long and narrow shape of the assessment area, coupled with the extent of development in lands through which the river flows, mean that fragmentation effects are very high. This is particularly evident in the lower reaches of the river, where riparian buffers are minimal or absent, and development is occurring right up to, or even inside the edges of the river floodplain.

It is also worth mentioning that where Hokitika River flows beside areas of wetland, such as the extensive bog in HOK\_33 - Butlers, there is an important hydrological (thus ecological) connectivity along these interfaces or ecotones. Large parts of the adjacent land are developed for dairying but the river retains high diversity of threatened fish species and is an important corridor for migratory fishes. Although high diversity of freshwater native species is found here, there are also significant adverse impacts from surrounding land use. These areas are flanked by private land, predominantly intense dairy farming. The main stem is used by the migratory galaxias, but the adult stages of giant and shortjaw kōkopu will probably be migrating to habitat upstream or on side tributaries.

## Recreation Values

### Setting

These areas are mostly in Backcountry-remote zone and also include a small section of a Frontcountry site, the Hokitika Gorge Walk.

### Visitor type and activities typically undertaken

The lower Hokitika River immediately above and below the SH6 bridge is popular for whitebaiting during the season. Whitebait stands and temporary whitebait huts are located on the riverbanks. The river is used by kayakers, fishers and occasional jetboaters. The areas at the start of the Styx, Kokatahi, Toaroha and Whitcombe valleys tramping tracks are used by backcountry adventurers, including trampers, hunters and kayakers. Hokitika Gorge is a popular short walk destination.

### Access

The areas can be accessed by road and on foot.

## Heritage Values

### Historical overview

Hokitika River mouth was the closest anchorage to the newly discovered goldfields on the West Coast in 1864. By 1865 Hokitika was a booming town, with a population of over 4,000 before declining to 2,000 by the end of the 19th century. Between 1864–67, 37,000 gold seekers arrived by ship through the Hokitika Port, making it the busiest port in New Zealand at that time. The historic wharf remains are in the northern portion of this area (J33/36).

### Sites recorded

- J33/36 old wharf remains
- Hokitika Port is part of the Hokitika Port, Commercial and Government Centre Tohu Whenua site

### Heritage values

The wharf was an integral part of Hokitika Port with vast numbers of ships bringing miners and goods to supply the needs of the surrounding goldfields.

## Permissions summary

- Extraction concession for gravel Hokitika and Kokatahi rivers
- Extraction permit for gravel extraction sites within Hokitika and Kokatahi rivers.
- Extraction permit for gravel from Hokitika River
- Grazing licence for grazing part of the Hokitika riverbed
- Grazing licence for grazing part of the Hokitika riverbed reissue
- Grazing licence for grazing Diedrichs Creek
- Grazing licence for grazing over part of the Kokatahi riverbed
- Access easement for installation and maintenance of two power poles at Wall Road, Kowhitirangi crossing Hokitika River
- Grazing concession for grazing in Hokitika and Kokatahi rivers

- Extraction permit for gravel extraction x 11 sites Hokitika 4.1 ha (VRN25850-68601?), Kokatahi, Waitaha, Wanganui, Waiho, Cook, Arawhata, Wahtaroa, Poerua and Jackson rivers, Docherty Creek
- Grazing licence for grazing part of the bed of Kokatahi River
- Grazing licence for grazing on Hokitika riverbed
- Easement for buried effluent discharge pipeline to middle channel of Hokitika River, diversion, gravel extraction and stop bank
- Easement to run a stormwater pipe through Hokitika River marginal strip
- Extraction permit for collection of schist and granite from creeks and rivers for sale as decorative stone and paving
- Grazing licence for grazing dairy and beef on part bed of Kokatahi/Hokitika riverbed
- Easement for a power line at Hokitika River
- Grazing licence for grazing within various conservation areas near Hokitika river, Kowhitirangi
- Grazing Licence for grazing Styx and Kokatahi rivers
- Grazing licence for grazing dairy and beef cattle on land adjacent to Styx River 4 ha
- Extraction permit for gravel extraction sites within Hokitika and Kokatahi rivers
- Extraction permit for rock extraction from Kokatahi River, MacGregor Creek, Wainihinihi Creek and Waitaha River

## Map (aerial photo)

