

# HOK\_15 – Bells Dam – (9.3595 ha)

Protected Area(s)	Area (ha)	NaPALIS #	# of Primary Parcels
Conservation Area - Bells Dam	9.3595	2809284	1

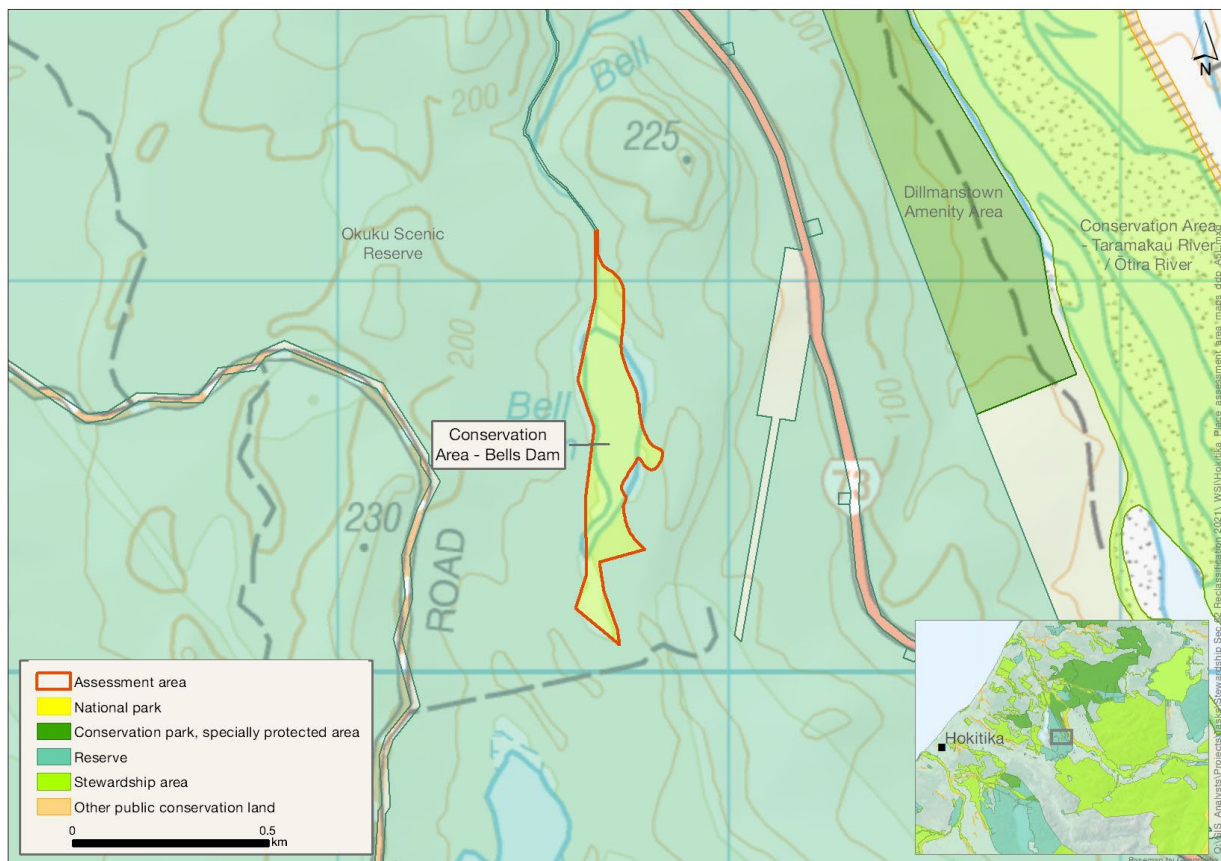
## Location

Bells Dam surrounded by Okuku Scenic Reserve is on an outwash terrace west of the Kumara to Arthurs Pass highway.

## Brief Description

A narrow piece of stewardship 'land', which is predominantly a lake created by a small dam at the northern end over 100 years ago, is slowly filling in and is now becoming an ephemeral wetland (i.e. with fluctuating water level). Ephemeral wetlands are naturally rare and threatened ecosystems. This site will undoubtedly contain some notable and possibly rare species given proper survey. There is no easy access, tracks or facilities, and likely little recreational use. The site is associated with the huge demand for water generated by large scale alluvial mining last century – the development of water supply networks required significant investment and labour and were valuable pieces of infrastructure in the goldfields. No permissions are in place.

## 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

This assessment area is a small and diminishing lake created by the small dam at the northern end, which is apparently now in disrepair. Although the vegetation surrounding the lake has been partly induced by the creation of the dam, it is likely to be made of almost entirely indigenous plant communities that are highly representative of these wetland ecosystems in the Hokitika Ecological District.

With the dam being non-functional for many decades, the lake has regularly but inconsistently been filling in, becoming an ephemeral wetland. There is a main channel evident in contemporary photos dating back until at least 1970. There are areas of swamp and ephemeral wetlands present and given the surrounding forest, a predicted high water quality.

### Diversity and pattern

This area is dominated by the current and former extent of the lake formed by the dam. There are very strong gradients and ecotones that extend from semi-permanent water through ephemeral wetland vegetation to the shrublands and extensive podocarp (*Podocarpaceae* and *Phyllocladaceae*) forest that exists around the entire site. Vegetation would be expected to be very diverse because of such diverse habitat, and fauna similarly so.

There are no records of freshwater species within the area or upstream of the dam so species values are uncertain. There are nearby records of kōaro (*Galaxias brevipinnis*), shortfin eel (*Anguilla australis*) and longfin eel (*Anguilla dieffenbachii*), which may be present.

### Rarity and distinctiveness

This site is an ephemeral wetland (i.e. with fluctuating water level) and is therefore a naturally rare and threatened ecosystem. Small lakes and associated wetlands such as this provide important habitat for many invertebrates and waterfowl in particular. There are no records of terrestrial threatened species from the site, but it will undoubtedly contain some notable and possibly rare species given proper survey.

The land environment status of the assessment area is: Less Reduced and Better Protected (greater than 30% indigenous cover remaining and greater than 20% protected).

### Ecological context

The assessment area is surrounded by the Okuku Scenic Reserve, a large (>2,000 ha) forest that connects with many other important areas of public conservation land in the lower Taramakau/Arahura outwash plains and more mountainous landscapes to the east. As such, this interesting ecological feature is an integral part of a larger geographic area. Human disturbance to the site is almost entirely historic, having occurred well over one hundred years ago.

## **Recreation Values**

### **Setting**

This area is in a Backcountry-remote zone, with no tracks or facilities.

### **Visitor type and activities typically undertaken**

Likely to receive little recreation use.

### **Access**

No easy access to this area – it is possible to visit on foot via Loopline Road and the adjacent scenic reserve.

## **Heritage Values**

### **Historical overview**

Okuku water race and Bells Dam are recorded as an archaeological site (J32/86) and fall within the stewardship land. Bells Dam was part of a network of dams and waterways connected to gold workings around Dillmanstown. Cashman, Houlahan and party are reported as the first party to mine gold in the Dillmans area. By 1876 they held claims, residence area licences, a dam and water races some 3 miles in length. Late that year they extended their race and were selling water to other miners. In March 1877 the Okuku and Prospectors Amalgamated Water Race and Goldmining Co. was formed. The race was extended south and two new large dams (Okuku and Bells?) were constructed, the original race widened and new distribution races built. By October that year, 35 mining parties were reported as waiting for water from the company. Demand for water continued to be high even after the construction of the Waimea-Kumara water race in 1879. From the 1890s demand declined and the race appears to have fallen into disuse about 1911. The water rights of the race reverted to the Crown and it was sold together with the Waimea race to Westland Electric Co. in 1927, after which water from the race was fed into the penstocks of the Kumara power station.

### **Sites recorded**

J32/86 Okuku water race: an 8 mile water race system incorporating several dams, natural water courses and ditching

### **Heritage values**

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### **Modifying factors**

The race fed water from Okuku through to flumes and piping just south of Kumara. Feeder head races would have been in place to feed water to claims enroute. The section of race between Bells Dam and Cashman Dam to

the north was badly damaged by bulldozing in the late 1980s and the original control gate and timber structure at Bells Dam were dug out and replaced with twin plastic pipes with stopcocks in the breastwork of the dam. The race line between Bells and Okuku dams is largely unmodified.

## Permissions summary

N/A

## Map (aerial photo)

