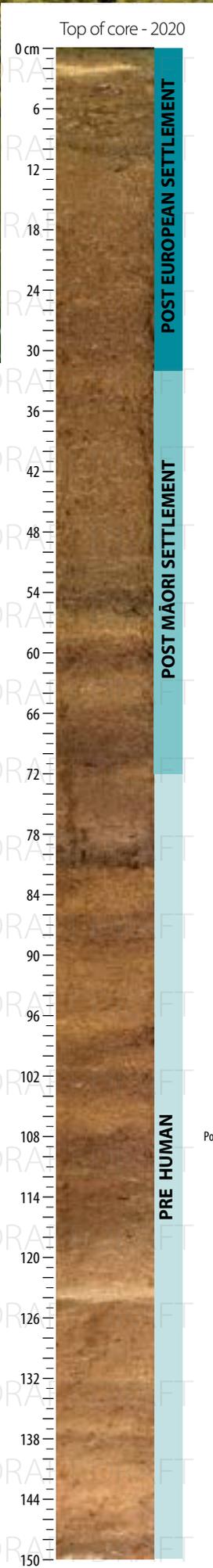




Lakes380

Our lakes' health past, present, future
Me hoki whakamuri,
kia haere whakamua



LAKE MARION



Region: Canterbury **Location:** Sumner Regional Park **Coords:** 42° 40'44" S 172° 13'54" E **Depth:** 6 m

Lake Marion lies north of Lake Sumner, in the Hurunui – Waiiau Water Management Zone. The lake is free from introduced fish and protected as a 'Faunal Reserve'. The lake is sometimes high in nutrients caused by natural nutrient cycling.

Initial results from the sediment core suggest that the dense native beech forest catchment surrounding Lake Marion today has not changed since prior to human arrival.

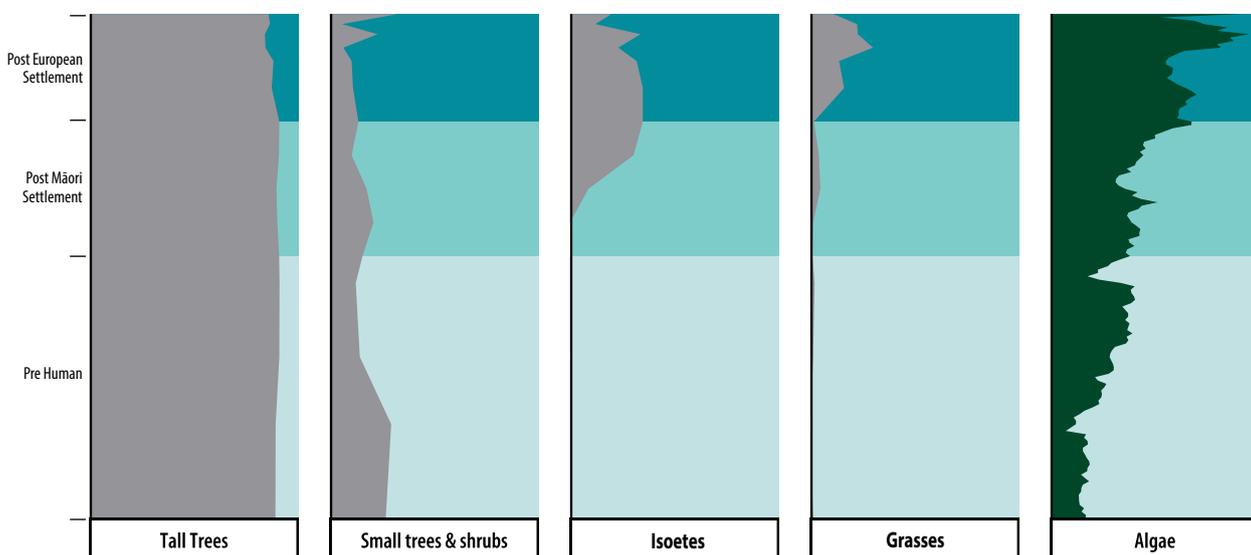
As Māori arrived there are indications of changes further afield in the region. Traces of charcoal (burning) and bracken fern pollen appear, which is commonly associated with landscape disturbance. An aquatic plant known as isoetes

is recorded for the first time during this era and is abundant in the lake until current day.

Post European arrival, grasses increase, which likely indicates wind blown pollen from the establishment of pastoral land use in the wider region.

Algae have always been present in the lake, but their abundance appears to have gradually increased over the last ~700 years.

POLLEN, CHARCOAL AND ALGAE LEVELS FOR THE PAST ~1600 YEARS



The graphic indicates the changes in abundance of plants, charcoal or algae through time.