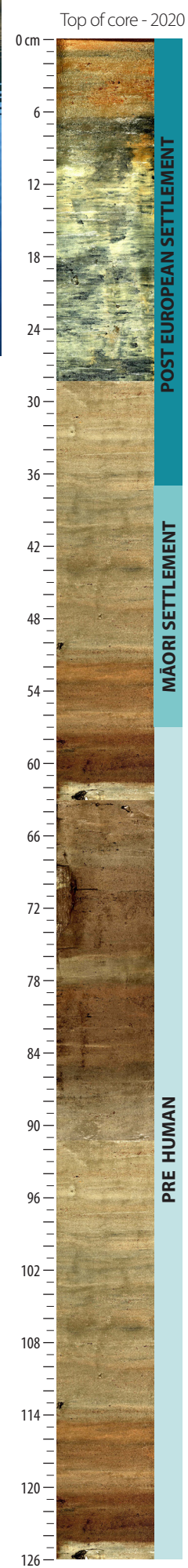




Lakes380

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



LAKE WAIHOLA



Region: Otago **Location:** Dunedin **Coordinates:** 46° 1'16" S 170° 4'48" E **Depth:** 2 m

Lake Waihola is a shallow tidal lake which is part of the Waipori / Waihola lake-wetland complex. The lake and wetland were a very significant mahinga kai for iwi. About 4000 years ago the lake was an estuary.

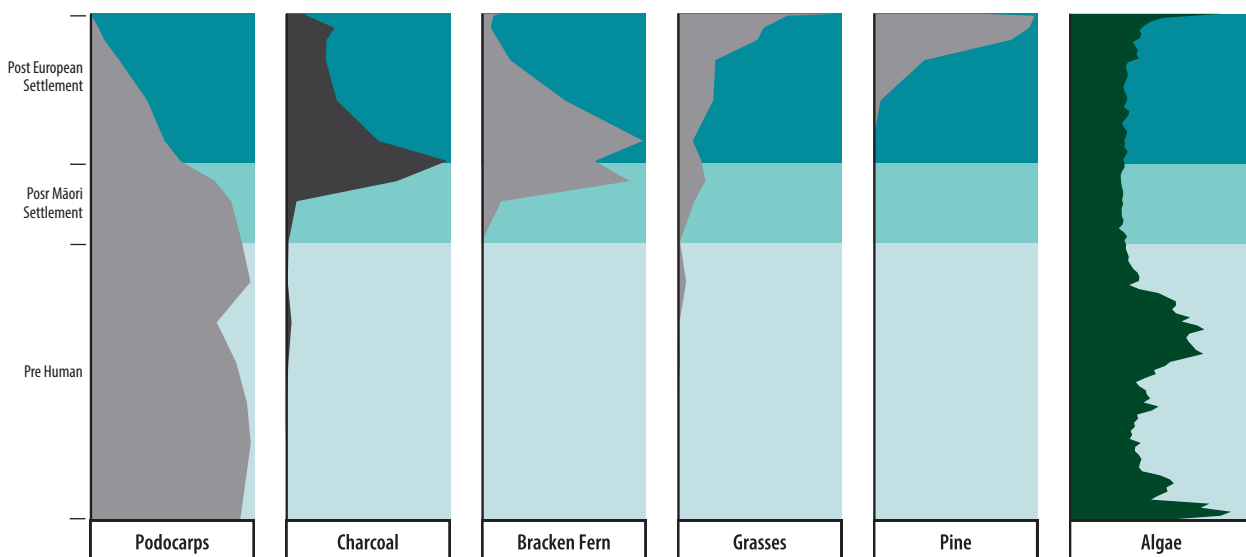
The initial results from the sediment core suggest that prior to human arrival the lake was surrounded by native forest including rimu, mataī and smaller trees such as celery pine.

After human arrival some vegetation clearance began. This is highlighted in the graphs below by the increase in charcoal (burning) and pollen from bracken fern, which is commonly associated with landscape disturbance.

Post European arrival native vegetation was replaced by pastoral land, and non-native trees such as pine were planted in the region.

Analysis of algae suggests that about 1000 years ago, when the lake was more saline, algae or aquatic plants were abundant. After this, algae levels decreased and remained relatively stable for 700 years. However, they have increased in recent decades.

POLLEN, CHARCOAL AND ALGAE LEVELS FOR THE PAST ~4000 YEARS



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