



# Recreational

We have been busy looking at how our proposed changes will affect recreational activities in the Whangarei Harbour and surrounds, including Bream Bay.

## How did we assess effects on recreation?

During 2015 and 2016 Refining NZ consulted recreational users of the harbour and surrounds.

We also asked independent experts to gather sources – such as past studies and surveys - that identify the many recreational uses of the area.

They concluded the study area is popular for a wide-range of different activities such as swimming, beach-going, diving, snorkelling, kite-surfing, fishing, surfing, shellfish gathering and boating.

## Effects on marine mammals

The independent experts have identified the following potential effects during dredging and disposal:

- Turbidity (cloudiness in the water caused by stirred up sediment) affecting swimming and diving
- Exposure to any contaminants that might be in the dredge material
- Effects on the quality, abundance and catchability of marine species - including finfish, shellfish and other seafood
- The dredging activity itself posing a hazard to recreational users, especially boaties

Potential effects once the new shipping channel is operating:

- Long term changes to tides, currents and waves caused by the new seafloor profiles in the channel and at disposal sites
- Changes to beaches and the foreshore from changed wave patterns
- Wakes from larger cargoes on Suezmax vessels
- New and relocated navigational aids – the channel marker buoys and markers

While the assessment identified a number of potential adverse effects on recreation very few actual effects are expected.

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## **Turbidity**

Unlikely given that sediment plumes will be contained within the channel and so should not encroach on recreational areas.

## **Waves**

Small changes to wave energy are unlikely to affect surfing or swimming in the area.

## **Tides**

The timing of the tides may change slightly but this will have no effect on recreation (tide times change every day).

## **Beaches**

No impacts are expected on surrounding beaches. Over the long term, ongoing maintenance dredging has some potential to impact Mair Bank, however mitigation and monitoring measures to ensure there are no effects and to offset current erosion, are proposed.

» More detail from the independent expert report is available in the coastal processes information sheet.

## **Marine ecology**

The independent experts have concluded that there will be a reduction in the seafloor benthic biomass in places where the actual dredging and disposal activity would be taking place. This impact is expected to be minor overall, due to the following factors:

- temporary nature of the impact (6-12 months) and progressive recovery during this time;
- mobility of finfish;
- limited impacts on other surrounding feeding areas; and
- overall scale of the local fishing resource with alternative fishing sites close by.

An increase in local finfish activity as dredging exposes food sources is likely to be short lived. Berley will remain an effective way to attract finfish in disturbed dredge/disposal areas.

» Refining NZ commissioned independent experts to review the effects of our proposal on marine ecology – please take a relevant sheet that focuses on this.

## **Contaminants**

No water quality issues are anticipated due to the clean, uncontaminated nature of the dredged material.

## **Harbour safety**

The risk posed by a dredger is no different to that posed by other vessels on the harbour. The proposed aids to navigation are not expected to have any adverse effects on recreational uses of the harbour. Provided boaties continue to comply with Harbour navigation rules then there should be no impact on their activities.



If you'd like to know more of the nuts and bolts of the recreational effects of our proposed changes you can get a copy of the assessment reports from the independent experts [here](#)