



Ocean and coastal extreme waves (4m), 2009

Title	Ocean and coastal extreme waves (4m), 2009
Creator	Stats NZ
Date	2009
Date	2019-10
Description	<p>These data estimate the occurrence of extreme wave events in coastal and oceanic waters for 2009, particularly for wave events where significant wave height exceeds a threshold of 4 metres and for a period of at least 12 hours. Significant wave height is defined as four times the square root of the variance of sea surface elevation due to wave motion.</p>
Source	<p>This index was generated using NIWA's operational wave forecasting model NZWAVE-12 (Gorman, 2016). This model has a 12-kilometre resolution and models wave heights. The model was created using: • wind from NIWA's NZLAM-12 weather forecast model • swell from NIWA's global wave forecast model We use a duration threshold of 12 hours as it allows semi-diurnal tides to cover their full low water to high water range. This means that there was both a high tide (when overtopping and damage to coastal infrastructure, for example, is most likely) and a low tide during an event. Gorman, R (2016). Extreme wave indices for New Zealand coastal and oceanic waters. NIWA Client Report HAM2016-014 prepared for the Ministry for the Environment.</p>
Coverage	-54.49219 143.2617 -20.82031 184.6289
Identifier	https://data.mfe.govt.nz/layer/104076-ocean-and-coastal-extreme-waves-4m-2009/
Type	grid
Language	eng
Subject	New Zealand
Subject	CLIMATE-AND-WEATHER
Subject	CLIMATE-AND-WEATHER-Meteorology
Subject	CLIMATE-AND-WEATHER-Extreme-weather-events
Subject	MARINE-Meteorology
Subject	MARINE-Coasts
Subject	

OCEANOGRAPHY

Subject

OCEANOGRAPHY-Physical

Subject

climatologyMeteorologyAtmosphere

Subject

oceans

Subject

environment