



Water clarity trends, 2009–2013

Title

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Description

Water clarity is a measure of underwater visibility in rivers and stream. Water clarity can be reduced by the presence of fine particles like silt, mud or organic material in the water. This affects the habitat and feeding of aquatic life like fish and aquatic birds. Water clarity is an important indicator of the health of a waterway, and is also a consideration for recreational activities like swimming and wading. This dataset relates to the "River water quality trends: clarity" measure on the Environmental Indicators, Te taiao Aotearoa website.

Source

Source: NIWA Method: Water clarity is measured using a black disc the size of a soccer ball. The disc is placed in the water, and viewed through an underwater viewing box at increasing distances until the black disc disappears from sight. This provides a consistent measure of the greatest distance an object can be seen through the water (Davies–Colley, 1988). NIWA have measured monthly water clarity consistently at 77 sites along 35 major rivers between 1989 and 2013. These 35 rivers drain about 50 percent of New Zealand's land area. This long-term measurement data is particularly useful for tracking changes in water clarity over time (Ballantine and Davies Colley, 2014). Trends over shorter time periods can be assessed using regional council data. However, these monitored sites are not representative of the national river network because they tend to be located in more problematic areas. The data was flow-adjusted before trend analysis, to remove the influence of variation in stream flow. Flow adjustment means the reported trends better reflect for the effects of controlling factors other than flow. The accuracy of the data source is of high quality. Reference: Ballantine, DJ & Davies–Colley, RJ (2014). Water quality trends in New Zealand rivers: 1989–2009. Environmental Monitoring and Assessment, 186(3), 1939–1950. Davies–Colley, RJ (1988). Measuring water clarity with a black disc. Limnology and Oceanography, 33(4), 616–623. Accessed 18 August 2015 from www.horizons.govt.nz.

Coverage

-46.6296622637 167.534694771 -35.0386283946 177.881584208

Identifier

<https://data.mfe.govt.nz/layer/52685-water-clarity-trends-20092013/>

Language

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Subject

environment

Subject

New Zealand

Subject

| WATER

Subject

| WATER-Quality