



## Observed streambed sedimentation, 1990–2011

### Title

Observed streambed sedimentation, 1990–2011

### Creator

Environmental Reporting, Ministry for the Environment and Statistics New Zealand

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### Description

"Fine sediment is the collective term for inorganic particles deposited on the streambed less than 2mm in size. Urban development and agriculture and forestry around waterways can increase the amount of sediment entering river systems. Sedimentation can clog space between pebbles that are used by aquatic insects and fish, alter food sources, and remove sites used for egg laying. Excess sediment can affect the appeal of rivers and streams for recreation. This dataset relates to the "Streambed sedimentation" measure on the Environmental Indicators, Te taiao Aotearoa website. Field names NZREACH Stream segment label SEDO Predicted observed percentage fine sediment cover, i.e. contemporary state SEDE Predicted expected percentage fine sediment cover, i.e. reference state. "

### Source

Source: Clapcott et al. 2011 Method: "Using the Wentworth (1922) classification system, fine sediment is characterised by particle size as mud and silt (<0.0625 mm) and sand (0.0625–2 mm). Some New Zealand stream beds are naturally dominated by fine sediment, although these are usually very small with low slopes, low rainfall, and on sandy soils Stream bed sedimentation is typically measured by visually estimating the proportion of the river bed covered by different sized substrates. This information is collected during fish surveys, and is stored in the Freshwater Fish database managed by NIWA. Observed in-stream sediment values for 10,026 sites are reported, dating from 1990 to 2011, in order to derive contemporary cover. The exception was Fiordland where all available information (1970 to 2011) was used to fill a representation gap. A regression model was used to predict the relative proportion of fine sediment cover in every stream in New Zealand. This is inferred from the measured percent of fine sediment cover and predictors such as the slope of the river, climate and catchment land cover. The accuracy of the data source is of medium quality. For further information please see: Clapcott, J.E., Young, R.G., Harding, J.S., Matthaei, C.D., Quinn, J.M., and Death, R.G. (2011) 'Sediment Assessment Methods: Protocols and guidelines for assessing the effects of deposited fine sediment on in-stream values.' (Cawthron Institute: Nelson, New Zealand) Wentworth, C (1922). A scale of grade and class terms for clastic sediments. Journal of Geology, 30(5), 377–392. Available from [www.jstor.org](http://www.jstor.org). "

### Coverage

-47.2304699662 166.500105121 -34.3966280842 178.540685043

### Identifier

<https://data.mfe.govt.nz/layer/52678-observed-streambed-sedimentation-19902011/>

### Language

| eng  
Subject  
| New Zealand  
Subject  
| WATER  
Subject  
| WATER-Hydrology  
Subject  
| environment