Trends in groundwater quality, 2005–2014

Title

Trends in groundwater quality, 2005–2014

Publisher

New Zealand's Environment Reporting Series: The Ministry for the Environment and StatsNZ

Description

Groundwater quality indicators include E.coli, nitrate-nitrogen, ammoniacal nitrogen, and dissolved reactive phosphorus. Also included is data on pesticides, iron, manganese, electrical conductivity, and total dissolved solids. Information on sampling protocol, equipment, and method is provided. Nitrogen occurs naturally in groundwater, but usually at very low concentrations. Agricultural and urban land use can add more nitrate-nitrogen to groundwater. If used for drinking water, high levels of nitrogen in groundwater can affect human health and the quality of surrounding rivers and lakes. Ammoniacal nitrogen is undesirable if groundwater is used for drinking, and elevated levels of nitrate and ammoniacal nitrogen can be toxic to fish and other animals. Surplus phosphorus drains (leaches) into groundwater as dissolved reactive phosphorus. It can also be present naturally from interactions between groundwater and rocks. Too much phosphorus can lead to excessive plant and algae growth where groundwater flows into surface water. E.coli in fresh water can indicate the presence of pathogens (disease-causing organisms) from animal or human faeces. The pathogens can cause illness for anyone who ingests them. This dataset relates to trends in four groundwater quality indicators: nitrate nitrogen, ammoniacal nitrogen, dissolved reactive phosphorus, and E.coli. throughout New Zealand over the 10-year period 2005–2014.

Source

GNS Science and regional councils

Coverage

National, 2005–2014

Identifier

https://data.mfe.govt.nz/table/53604-trends-in-groundwater-quality-20052014/

Identifier

FW17/006

Type

Dataset

Language

New Zealand English

Subject

nutrients, water quality, groundwater